

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH
JOURNAL DE CHIRURGIE, PARIS
ZENTRALBLATT FÜR DIE GESAMTE CHIRURGIE UND IHRE
GRENZGEBIETE, BERLIN
ZENTRALBLATT FÜR DIE GESAMTE GYNAKOLOGIE UND
GEBURTHILFE SOWIE DEREN GRENZGEBIETE, BERLIN
LIBRARY, 329

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER, Berlin

PAUL LECENE, Paris

B. C. A. MOYNIHAN Leeds

EUGENE B. TALBOT JR. Abstract Editor

Volume XVII
July to December 1913

PUBLISHED BY
THE SURGICAL PUBLISHING COMPANY OF CHICAGO
31 NORTH STATE STREET CHICAGO
1913

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA L. WYLL & ANDREWS WILLARD BARRETT FREDERICK A. BEELEY ARTHUR DEAN BEVAN J. F. BRYNIE GEO. DE L. BRUNER W. B. BRIDGEMAN JOHN LOCK BROWN D. VID CHESTER H. R. CHUTELEY ROBERT C. COFFEY F. GEORGE CONNELL FREDERICK J. COTTON G. OGGIE W. CRILE W. R. CURENS HARVEY CURRIE J. CH. LEMERY D. COFF CHARLES DAVISON D. N. DEGENBATH J. M. T. FINNEY JACOB F. ACK CHARLES H. FRAZER EMANUEL FREYD W. M. FULLER JOHN H. GIBSON D. W. GRAHAM W. W. GRANT A. E. HALLSTAD M. L. HARRIS A. P. HATHORN WILLIAM HESSERT THOMAS W. HUNTINGTON JAMES N. JACKSON L. S. JORD C. E. KAHLEK ARTHUR A. LAW ROBERT G. LE CONTE D. M. D. LEWIS ARCHIBALD MACLAREN EDWARD MARTIN RUDOLPH MATAS CHARLES H. M. TO WILLIAM J. MAYO JOHN R. McDELL STUART MCGILL LEWIS S. McMURTRY WILL MEYER JAMES E. MOORE FRED T. M. PEY JOHN B. MURPHY JAMES M. NEFF EDWARD H. NICHOLS A. J. OCHSNER ROSEWELL PARK CHARLES H. PECK J. R. PENNINGTON S. C. PLUCKNER CHARLES A. POWERS JOSEPH RANSONOFF H. M. RICHTER ERNEST RICHFORD H. A. ROISTER W. L. SCHROEDER CHARLES L. SCUDGER M. G. SEELIG E. J. SEA JOHN E. SUMMERS JAMES L. THOMPSON HERMAN TURBULESE GEORGE TULLY V. UGRIK JOHN R. W. TREN CANADA E. A. ARCHIBALD J. D. ARMSTRONG H. A. B. COCK J. VING J. CAMERON JAMES HALPERNY J. ALICE HUTCHINSON FRANCES J. SHEPARD F. N. STARR T. D. WALKER ENGLAND H. B. TAYLOR AUGUS ARTHUR H. BARKER W. WATSON CHRYME W. SIMPSON H. COLEY W. ARRESTON LAKE G. H. MAKING ROBERT MILNE B. G. A. MOTYKE ROBERTON PARKER HAROLD J. STILES GORDON T. YLOR

GYNECOLOGY AND OBSTETRICS

AMERICA FRANK T. ANDREWS BROOKER M. AMERSON W. E. ARNO J. M. BALDY LEONARD W. BARRETT HERMAN J. BOLST J. WHELEY DOYLE LE ROY BROWN HENRY T. BYFORD JOHN G. CLARK EDWIN B. CRAIGH THOMAS S. CULLEN EDWARD P. D. VID JOSEPH B. DE LEE ROBERT L. DICKINSON W. A. NEWMAN DORLAND E. C. DUDLEY HOOO EMERGENCY C. & ELDER PALMER FIDOCKY HENRY D. FAY GEORGE GILLINSON J. RINDLE GOSTE SEEN C. GORDON BARTON C. HERT JOSEPH T. JOHNSON HOWARD A. KELL ALBERT F. A. KING FLORIAN KRDO L. J. LADYMET H. F. LEWIS FRANK W. LYNN WALTER P. MANTON JAMES W. MARKEE E. E. MONTGOMERY HENRY P. NEWMAN GEORGE H. NOBLE CHARLES E. PADDOCK CHARLES B. PETERSON REUTHER PETERSON JOHN O. POLAK WM. M. POLK EDWARD REYNOLDS EMIL RIES JOHN A. SAMPSON F. F. SCHYRON RICHARD R. SMITH WILLIAM S. STONE H. M. STONE WILLIAM L. STONEDORD FREDERICK J. T. UGRIK HOWARD C. T. YLOR HERMAN N. VERNBERG W. F. B. WAKEFIELD GEORGE G. WARD JR. WILLIAM H. WATKIN J. WHIT RIXOX WILLIAMS CANADA W. W. CHIFFMAN WILLIAM GARDNER F. W. MARLOW K. C. McILWRAITH V. P. W. TWO A. H. WRIGHT ENGLAND RUSSELL ANDREW THOMAS W. EDWIN W. L. FOTHERGILL T. B. HELLIER THOMAS WILSON SCOTLAND WILLIAM FORBUTCH J. M. MUIRDO KERR IRELAND HENRY JELLEYT HASTORUM TWRENT AUSTRALIA RALPH WOBRAILL SOUTH AFRICA H. TEMPLE MURSELL INDIA KEDARASATH DAS

GENITO-URINARY SURGERY

AMERICA WM. L. BAUM WM. T. BELFIELD JOSEPH L. DORRICK L. W. BERNERMAN HUGH CANOT JOHN R. CAULA CHARLES H. CHETWOOD JOHN H. CUNNINGHAM J. S. EISENSTADT RAMON GUTIERREZ F. JACK R. HAGNER ROBERT HENRY EDWARD L. KETTER J. GUNTA KOLISCHER F. KREIMEL BRANDFORD LEWIS G. FRANK LYNDON GRANVILLE MACGOWAN L. E. SCHMIDT J. REIDLEY SCOTCH B. A. THOMAS WM. V. WERNARD HUGH H. YOUNG JOSEPH ZIEGLER ENGLAND T. W. THOMPSON WALKER JOHN G. PARDOX INDIA MANGESORALL MITRA

ORTHOPEDIC SURGERY

AMERICA E. C. ANDOTT N. TRAMTEL ALLISON W. S. BARR GWILYM G. DAVIS ALBERT G. FAIRBIRD ARTHUR J. G. LITTLE VIRGIL P. GIBNEY JOEL E. GOLDENSWALT O. W. IRVING ROBERT W. LOVETT GEORGE R. PACKARD JOHN L. PORTER JOHN RIDGON EDWIN W. RYDERSON HARR M. SIEGMA D. VID SILVER H. L. T. YLOR H. AUGUSTUS WILSON JAMES K. YOUNG CANADA A. MACLACHLAN FORBES HERBERT P. H. GALLOW CLARENCE L. STARR ENGLAND ROBERT JONES A. H. TUN GEORGE A. WRIGHT

RADIOLOGY

AMERICA EUGENE W. CALDWELL RUSSELL D. CARM L. GREGORY COLE PRESTON M. HACKET HEARTY HULEY GEORGE C. JOHNSON SIDNEY LANGE GEORGE L. FRANKLIN HOLLEN E. POTTER CANADA SAMUEL CUMMINGS ALEXANDER HOWARD

CONSULTING EDITORIAL STAFF—CONTINUED

SURGERY OF THE EYE

AMERICA C. H. BRADY E. V. L. BROWN H. D. B. VAN VAND H. HULEN EDWARD JACKSON W. P. MARBLE
 WILLIAM CAMPBELL POEY BROWN POEY ROBERT L. RANDOLPH JOHN R. WILKES CAMERON D. WENOOTY WILLIAM
 H. WILDER CAREY A. WOOD HIRSH WOODS. ENGLAND J. B. LAWTON W. T. HOLMES SPICER. SCOTLAND:
 GEORGE A. BERRY A. MATTILAND RANNEY.

SURGERY OF THE EAR

AMERICA EDWIN W. DA MAX A. GOLDSTEIN J. F. MCKENNON NORVAL H. PIERCE S. MACCUBEN
 SMITH. CANADA: H. R. BIRKETT. ENGLAND A. H. CHATFIELD. SCOTLAND A. LOGAN TURNER. IRELAND
 ROBERT H. WOODS.

SURGERY OF THE NOSE AND THROAT

AMERICA JOSEPH C. BECK T. MELVILLE HARDIE THOMAS J. HARRIS CHRISTIAN R. HOGGINS E. FLETCHER
 DOUGLAS CHEVALIER JACKSON JOHN N. MACKINNON G. HUDSON MARMON GEORGE P. UL MARQUIS JOHN EDWIN
 KROGER. AUSTRALIA A. J. BRADY A. L. KIRNEY INDIA F. O'NEAL.

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS—GENERAL SURGERY
 CAREY CULBERTSON and CHARLES B. REED
 —GYNECOLOGY and OBSTETRICS
 LOUIS E. SCHMIDT—GENITO-URINARY SURGERY
 JOHN L. PORTER—ORTHOPEDIC SURGERY

HOLLIS E. POTTER—RADIOLOGY
 WILLIAM H. WILDER—SURGERY OF THE EYE
 NORVAL H. PIERCE—SURGERY OF THE EAR
 T. MELVILLE HARDIE—SURGERY OF NOSE AND
 THROAT

GENERAL SURGERY

AMERICA CARROLL W. ALLEN E. K. ARMSTRONG DONALD C. BALFOUR H. R. BARRINGER GEORGE E.
 REILLY B. M. BERENSON BARRY BROOKS WALTER H. BURLING J. P. CANNETT OTTO CASTLE PHILLIPS M. CHASE
 JAMES F. CHURCHILL LEONORE COHEN EARL CONNELL LEWIS B. CRAWFORD V. C. DAVID NATHAN S. DAVIS, III
 D. L. DUFFARD L. G. DWAN FREDERICK G. DYAS A. B. EUSTACE ELLIS FISCHER HERMAN B. GERSHBERG
 DONALD C. GORDON TORR WAGNER HARRIS CHRISTIAN D. HAYES JAMES P. HENDERSON CHARLES GORDON
 HENRY HAINOLD P. KUM LOUIAN H. LANCY FELIX A. LARON HALEY S. LORER URBAN MARK WM. CARPENTER
 MACCARTY B. F. MCORRATH E. W. MCNEAL ALFRED H. NORDHOF MATTHEW W. PIERARD MAURICE C.
 PINCOFFS E. GREEK R. POOL H. A. POTTS MARTIN B. REEDING E. C. RIEDEL FLOYD RILEY M. J. SKIFFERT
 J. K. SEIDLER HARRY G. SLOAN JOHN SMITH CARL R. STEINER LESTER H. THOMPSON HENRY J. VAN DER BEEK
 W. M. WILKINSON EART M. WILLIAMS ERWIN P. ZIEGLER. ENGLAND JAMES E. ADAMS FERNSTAL COLE
 ARTHUR EDMONDSON I. H. HODGKINSON ROBERT E. KELL WILLIAM GILLIATT B. C. MAYBURY ERIC P. GOULD
 T. B. LEGG FELIX ROOD E. G. SCHLESINGER B. SAMUELSON SCOTLAND HAROLD UNCOTT G. G. WILLIAMS.
 SCOTLAND JOHN FRASER A. P. MITCHELL HENRY WARD D. P. D. WILKIE.

GYNECOLOGY AND OBSTETRICS

AMERICA S. W. BAXTER A. C. BECK DANIEL L. BORDEN D. H. BOND ANNA M. BRAUNWARTER E. A.
 BULLARD EDGAR CAR W. H. CART SODERY A. CHALFANT EDWARD L. CONNELL A. H. CORTIS A. HENRY
 DUFFY F. C. EMERSON LILLIAN K. P. FARRAR W. B. FERRING HOWARD G. GARDWOOD MAURICE J. GELPHI
 LYNN R. GOLDSMITH N. SPOWART HANLEY T. LEACRAFT HENRY D. S. HILLMAN JOHN C. HENRY F. C. IRVING
 L. A. JOHNSON NORMAN L. KNIG GEORGE W. KORMAN H. W. KORTMEYER JULIUS LACHNER HERMAN
 LORER RAFFEL LORINI DONALD MACDONALD HARRY R. MATTHEWS L. P. MULLISAN ARTHUR A. MORTON ROSS
 MCPHERSON GEORGE W. OUTHREIDGE ALBERT E. PAGAN GEORGE W. PARTRIDGE WM. D. PHILLIPS

ABSTRACT EDITORIAL STAFF—CONTINUED

GYNECOLOGY AND OBSTETRICS—CONTINUED

REGINALD M. RAWLS L. W. BAUER HELFORD SCHILLER A. H. SCHMIDT HENRY SCHMIDT EDWARD SCHUMANN
EMIL SCHWARTZ J. M. SHERBOURNE CAMILLE J. STAMM ARNOLD STERNBERG GEORGE DE TARNOWSKY S. B. TYSON
MARIE L. WHITE P. F. WILLIAMS R. E. WOODS CANADA JAMES R. GOOSALL H. M. LITTLE ENGLAND
HAROLD CHAFFIN HAROLD CLIFFORD F. H. LACKY W. FLETCHER SHAW CLIFFORD WHITE SCOTLAND
H. LEITH MURRAY J. H. WILLET.

GENTTO-URINARY SURGERY

AMERICA CHARLES E. BARNETT J. D. BARNET B. S. BARRINGER HORACE BARNETT TELESCOPUS DROZDOWITZ
H. A. FOWLER F. L. GARDNER LOUIS GROSS THOMAS C. HOLLOW H. G. HANKE I. S. KOLL H. A. KRAUS
HERMAN L. KRETSCHMER MARTIN KNOTOWITZER V. D. LEONHANS WILLIAM E. LOWER HARVEY A. MOORE
STERLING W. MOOREHEAD A. NELSEN C. O'CONNOR R. F. O'NEIL H. D. OYE G. M. PETERSEN C. D.
PICKRELL H. J. POLKEY JAMES RAY RADDA S. WM. SCHAFFER GEORGE G. SMITH A. C. STOKES L. I. TEN BROECK
H. W. E. WALTHER CARL LEWIS WHEELER ENGLAND J. SWIFT JOLY SIDNEY G. MACDONALD.

ORTHOPEDIC SURGERY

AMERICA CHARLES A. ANDREWS A. C. BACHMEYER GEORGE I. BAUMANN GEORGE E. BENNETT HOWARD
E. BICKER LLOYD T. BROWN C. HERMAN BUCHHEIT C. C. CHATTERTON W. A. CLARK ROBERT B. COFIELD
ALEX. R. COLVIN ARTHUR J. D. VIDSON FRANK D. DICKSON ALBERT EISENBERG WILLIAM G. ERVING F. J.
GARDNER M. S. HENDERSON PH. HOFFMAN C. M. JACOBS S. F. JONES F. C. KIRKER F. W. LANG FREDSCOTT
LEBRENTON P. UL. B. MAGNUSON GEORGE J. MCCORMICK H. W. ORR ARTHUR O'REILLY H. A. FORBIE
W. W. PLUMMER ROBERT O. RITTER J. W. SAYER JOHN J. SHAW CHARLES A. STONE P. UL. P. SWIFT H. B.
THOMAS JAMES O. WALLACE JAMES T. WATSON C. E. WELLS DR. FOREST P. WILLARD H. W. WILCOX
CANADA D. GORDON E. ARL ENGLAND HOWARD BUCK E. ROCK CARLING N. DUTTON DUNN E. LAMSON
E. ARL W. H. HEY JOHN MORLEY T. P. McMURRA CHARLES ROBERTS G. D. TELFORD

RADIOLOGY

AMERICA D. VID R. BOWEN JOHN BURKE JAMES T. CARD WILLIAM EVANS ARTHUR GRANGER G. W.
GRIER ADOLPH HARTUNG ARTHUR HOLDING LEOPOLD JACOB ALBERT MILLER ED. H. SCHICKER D. VID C.
STRAUSS FRANK E. TURLEY J. D. ZUCKER

SURGERY OF THE EYE

AMERICA E. W. ALEXANDER N. M. BENDERHOFF C. G. DARLING T. J. DIMITR J. B. ELLIS E. B.
FOWLER LEWIS J. GORDON HARRY S. GRADLER J. MILTON GREENGLASS E. F. KROG FRANCIS LANE WALTER W.
W. THOM ENGLAND F. J. CUMBERGRAM M. L. HEPBURN FORSTER MOORE SCOTLAND JOHN FRANKSON
ARTHUR HY H. SORCLAIR RANSBY H. TRAQUAIR JAMES A. WILSON

SURGERY OF THE EAR

AMERICA H. BEATTIE BROWN J. R. FLETCHER E. B. FOWLER A. SPENCER KAUFMAN ROBERT L. LOCKEREN
W. H. THORNTON T. C. WINTERS CANADA H. W. JAMIESON ENGLAND G. J. JENKINS SCOTLAND
J. S. FRASER IRELAND T. G. GRAMAM

SURGERY OF THE NOSE AND THROAT

AMERICA GEORGE M. COATES CARL FISCHER R. CLYDE LYON ELLEN J. P. TYSON AUSTRALIA
V. MURDO INDIA JOHN T. MURPHY

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH

Journal de Chirurgie, Paris

*Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete, Berlin*

*Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete Berlin*

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER, Berlin

B. G. A. MOYNIHAN Leeds

PAUL LECÈNE, Paris

EUGENE S. TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J. DUMONT Paris

EUGENE JOSEPH Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wylys Andrews Willard Bartlett Frederic A. Bealey Arthur Dean Bevan J. F. Biondo George E. Brewer W. B. Brinsmade John Young Brown David Cheever H. R. Chislet Robert C. Coffey F. Gregory Connell Frederic J. Cotton Georg W. Cline W. R. Cobble Harvey Cushing J. Chalmers DaCosta Charles Davison D. N. Eisendrath J. M. T. Flannery Jacob Frank Charles H. Frasier Emmanuel Friend Wm. Fuller John H. Gibbon D. W. Graham W. W. Grant A. E. Halstead M. L. Harris A. P. Helmeck William Hoesert Thomas W. Huntington James N. Jackson E. S. Judd C. E. Kahle Arthur A. Law Robert G. Le Conte Dean D. Lewis Arnold M. MacLaren Edward Martin Rodolph Mathias Charles H. Mayo William J. Mayo Stuart McGuire

(Editorial Staff continued on pages vii, viii and ix)

Editorial communications should be sent to Franklin H. Martin, Editor, 31 N. State Street, Chicago

Editorial and Business Offices: 31 N. State Street, Chicago, Illinois, U. S. A.

Publishers for Great Britain: Balliere, Tindall & Cox, 8 Henrietta St., Covent Garden, London

TABLE OF CONTENTS

I. EDITORIAL	x
II. INDEX OF ABSTRACTS OF CURRENT LITERATURE	i
III. AUTHORS	vi
IV. ABSTRACTS OF CURRENT LITERATURE	1-100
V. BIBLIOGRAPHY OF SURGICAL LITERATURE	110-132

ABSTRACTS OF CURRENT LITERATURE GENERAL SURGERY

SURGICAL TECHNIQUE

Anesthetics
HOROWITZ: The Glands of Internal Secretion in Cases in which Death was Due to Chloroform
JORDISCO: General Spinal Anesthesia
HARRIS: Hyoscine-Morphia Anesthesia for Alcohol
F: Injection in Neuritis
SERVICES: Paralysis of the Phrenic Nerve in Pleures Anesthesia after Klemm's
BOOTHBY: Present Day Methods of Anesthesia
BLOODGOOD: Studies in Blood Pressure before, during and after Operations under Local and General Anesthesia

SURGERY OF THE HEAD AND NECK

Head
ALEXANDER AND CHIAVANO: Resection of Three Fourths of the Lower Jaw by the Mandibular Route and New Method for Mandibular Prosthesis
HUTCHINSON: Sub-Temporal Muscle Drainage by the Aid of Silver Wire Drainage Mats in Cases of Congenital Hydrocephalus
CORRIGIO: Concerning the Symptomatic Differentiation between Disorders of the Two Lobes of the Pituitary Body with Notes on Syndrome A credited to Hyperplasia of the Anterior and Secretory Stasis or Insufficiency of the Posterior Lobe
FRANKEL: The Pituitary Body in Disease; the Method and the Results of Surgical Intervention
FRANKEL: An Approach to the Hypophysis through the Anterior Cranial Fossa
Neck
WIKSLOWSKI: Neck Fistulas and Cysts
DOWD: Hygroma Cysticum Colli, Its Structure and Etiology
McKENNA: A Report on Two Cases of Cervical Rib and an Operative Measure to Prevent Recurrence of Symptoms
HUTCHINSON: Cervical Rib, Report of 3 Cases
CROWDER: Aberrant Gartner of the Submandibular Space
WILSON: The Pathology of the Thyroid Gland in Exophthalmic Goiter
JACOBSON: The Thyrogenic Origin of Basedow's Disease

SURGERY OF THE CHEST

Chest Wall and Breast
OSWALD: A Case of Hypertrophy of the Mammary Glands
DEWEY: Review of 534 Operations on the Mammary Gland

	MOLINIER: Clideoplastic Operation Using the Spina Scapula	1
	KARAJANOFFICLOS: Epithelial Tumors of the Glacis	11
1	SMITH: The Congenital Absence of Ribs; Report of Case with Complete Absence of the Left Seventh and Eighth Ribs	12
2	BROWN AND KRAUSE: The Uncertainty of the Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax: Report of Fatal Case, with Autopsy	13
	Trachea and Lungs	
3	WOLFF: Operation for Pulmonary Embolism after Trachelectomy	13
	Heart and Vascular System	
	STEWART: Five Cases of Suture of the Heart	13
	HARRIS: Temporary Arrest of the Heart Beats Following Incision of the Pericardium for Suppurative Pericarditis	15
4	MEYER: The Surgery of the Pulmonary Artery	15
4	SAUBERBACH: The Influence of Artificial Paralysis of the Diaphragm upon Pulmonary Diseases: Pneumectomy	16

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM	
3	TRAPP: An Inflammatory Dermoid of the Abdominal
5	Wall
6	BOWMAN: Fibrosarcoma of the Diaphragm
6	Encapsulating Hydatid Cysts of the Liver: Myoelec-
	tromy: Cure of the Patient, Presentation of Spec-
	imens
6	BERGSTEIN: Etiology of Hernia
7	OSWALD: The Treatment of Hernia in Children
7	HALLER: Chronic Inflammation of the Omentum in
	Relation to Chronic Appendicitis and Colitis
7	Gastro-Intestinal Tract
8	BROWN: The Etiology Symptomatology Diagnosis
	and Treatment of Acquired Displacement and
9	Fixation of the Stomach and Intestines
9	ZAJTER: Successful Transpleural Resection of the
9	Carcinoma of the Cardia
10	FRANKENWALD AND BARTLEY: The Value of X-ray Ex-
10	aminations in the Diagnosis of Ulcer of the
	Stomach and Duodenum
	SMITH: Gastric Ulcer without Food Retention. A
	Clinical Analysis of 140 Operatively Demonstrat-
	ed Cases
	CORRIGIO: Perforation of Gastric or Duodenal Ulcers
	Inferences on Modern Treatment Drawn from
	Histories of Patients Who have Recovered

FAROE: Results of Surgical Treatment in 60 Cases of Malign Cancer and Cancer Imbedded Upon Ulcers, of the Stomach	30
WELT: Statistics of Resection of the Stomach	31
BEING: The Influence of Gastro-enterostomy on Gas- tric and Duodenal Ulcers	32
HEINE: The Cause and Treatment of Certain Ula- cerable After-effects of Gastro-enterostomy	33
GLANVILLE AND KEEFER: Pylorospasm	34
MCGILVER: Intestinal Obstruction: A Clinical Study of 11 Cases	35
WHEATLE, STONE AND BERNHEIM: Intestinal Obstruc- tion. I. A Study of Toxic Substances Produced in Closed Duodenal Loops	36
WHEATLE, STONE AND BERNHEIM: Intestinal Obstruc- tion. II. A Study of the Toxic Substance Pro- duced by the Mucosa of Closed Duodenal Loops	37
WITTE, ANDREWS, S. GUSTAF, LA. F. HARTLEY AND COLVER: Symposium: Alimentary Toxemia	38
KRUEG: Mobilization of the Cecum by Radical Method and Comments on Kohnen's The Func- tional Disconnection of the Appendix	39
MILLER: The Lymphology of Local Anesthet- ic: Permanent Opening for the Large Intestine in Cases of Obstructing Carcinoma of the Rectum and Sigmoid	40
CORN: The Appendix in the X-ray Picture	41
JACKSON: Malignant Pericolic and Allied Condi- tions of the Cecocolic Region	42
FAGG: Contribution to the Study of the Congenital Megacolon	43
CHALLER AND PERLEY: Immediate and Remote Re- sults in Combined Operation for Cancer of the Rectum	44
DEAYER: Fecal Fistula	45
Liver, Pancreas, and Spleen	
SMITH: Morphological Changes in Tissues with Changes in Environment: Changes in Gall-bladder Following Autoplastic Transplantation into Gastro-intestinal Tract	46
VAN HENVELL: Clinical and Experimental Studies of Cholecystectomy	47
OUTERBRIDGE: Carcinoma of the Ampulla of Vater	48
MORINSON: The Possibility of Replacing the Chola- dochus by Implantation of the Processes Vermis- formis	49
PROFFER: Regeneration of the Cystic Duct Follow- ing the Insertion of Tube	50
KRAPE: Pancreatic Hemorrhage	51
CRONIN: The Diagnosis of the Functional Activity of the Pancreatic Gland by Means of Ferment Anal- yses of the Duodenal Contents and of the Stools	52
DEAYER AND PRIESTER: Pancreatic and Peripan- creatic Lymphangitis	53
MAYO: Surgery of the Pancreas. I. I. Injuries to the Pancreas in the Course of Operations on the Stomach. II. Injuries to the Pancreas in the Course of Operations on the Spleen. III. Resec- tion of Half of the Pancreas for Tumor	54
FRATT AND MURPHY: Pancreatic Transplantation in the Spleen	55
CUTLIP: Relation between Blood Pressure and the Prognosis in Abdominal Operations	56

SURGERY OF THE EXTREMITIES

Diseases of the Bones, Joints, Etc.	
WEDDERBURN: The Growth, the Death, and the Regener- ation of Bone	57

WILSON AND ROSENBERGER: The Relation of Trauma to Bone Tuberculosis	58
FRASER: An Experimental Study of Bone and Joint Tuberculosis	59
HANCOCK: Heliotherapy (of Röntgen) as an Adjunct in the Treatment of Bone Disease	60
STOCKER: Etiology and Therapy of Osteomalacia and Rachitis	61
MURPHY: Osteomyelitis of the Tibia: Transplanta- tion of Ten-inch Segment of Bone from Opposite Tibia	62
KAROWITZ: Rachitis in the New-born	63
CORLEY: Periosteal Round-celled Sarcoma of the Femur Involving Two-Thirds of the Shaft with Extensive Multiple Metastases	64
MARSHALL: A Collection of Facts, Ideas, and Theories Relating to the Diverse Elements that Contribute to Success in Treatment of Joint Diseases	65
BELL: The Treatment of Tuberculosis of the Joints	66
CORLEY: Myxoid Osteosarcoma Transfused	67
MURPHY: Chronic Trochanteric Bursitis	68
HENDERSON: Regeneration of the Tendon	69

Fractures and Dislocations

JOINT SCAPULOPH	70
JOINT SCAPULOPH	71
Surgery of the Bones, Joints, Etc.	
BOONAS: Resection of the Leg: Method of Excising the Knee-joint When the Latter is Extensively Involved	72
GALLIE: Tendon Fixation	73

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine	
LOVETT: The History of Scoliosis	74
PORTER: Scoliosis: Its Prognosis	75
LITTLE: Some Recent Advances in the Treatment of Scoliosis	76
FORBES: The Rotation Treatment of Scoliosis	77
FRANKEL: Corrective Jackets in the Treatment of Structural Scoliosis with Especial Reference to Measurement and Record	78
BRADSTOCK: What to Do after Corveth: Jackets are Discarded	79
COOK: An Introduction to the Symposium on Lateral Curvature	80
ABBOTT: Movements or Positions of the Normal Spine and Their Relation to Lateral Curvature	81
METZGER: A Consideration of the Correction of the Fixed Types of Lateral Curvature Complicat- ed by Visceral Derangements, Especially Those of the Cardiac Variety with Slight Modification of Abbott's Method	82
PARK: A Report of Fourteen Cases of Spinal Stenosis and One of Sacrocaudal Tumor	83
COLLIER AND CLARKE: Giant Tumors of the Cervix and Cauda Equina	84
Malformations and Deformities	
KUNZE: A Combination of Congenital Luxation of the Head of the Radius with Little's Disease	85
WILLARD: The Treatment of Flat Foot	86
OSGOOD: The Prevention of Foot Strain	87

SURGERY OF THE NERVOUS SYSTEM

GORDON: Experimental Study of Intracranial Injec- tion of Alcohol	88
--	----

- MAJOR** Recognition of Members of the Somatic Motor Chain of Nerve Cells by Means of Fundamental Type of Cell Structure and the Distribution of such Cells in Certain Regions of the Maxillofacial Area.
- MACCULLUM** Hyperexcitability of Nerves in Tetany.
- DELINNO AND PY** The Radiotherapeutic Treatment of Scabies.
- MURPHY** End-Result of Operation for Brachial Palsy.
- SAVITZ AND TIDEL** The Operation of Franko

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

- KORSEY** Free Fascia Transplantation; Experimental and Clinical Investigations.
- STEIN** The Grafting of Preserved Anastomotic Membranes to Burned and Ulcerated Surfaces Substituting Skin Grafts.
- STRAUSS** Copper in the Treatment of Cutaneous Tuberculosis.
- MACKEY AND RICKER** Mammary Dose X-ray Treatment of Cutaneous Epitheliomas.
- MERCER** Surgical Aspects of Purpura.

MISCELLANEOUS

- Clinical Entities—Tumors, Ulcers, Abscesses, Etc.**
- ROBERTSON AND BURDET** The Influence of Leukithin and Cholesterol upon the Growth of Tumors.
- FLEISHER AND LOES** Transplantation of Tumors in Animals with Spontaneously Developed Tumors.
- WATSON** Heredity with Reference to Carcinoma as Shown by the Study of the Cases Encountered in the Pathological Laboratory of the University of Michigan During 895 yrs.
- LEVY** The Mechanism of Metastatic Formation in Cancer.
- HEYDE AND VOLT** Studies on the Effect of Aseptic Surgical Thrombectomy and Researches on the Causes of Death from Burns.

- BLOOMBERG** The Diagnosis and Treatment of Border Line Pathological Lesions.
- Sera, Vaccines, and Ferments**
- LEITCH** Contribution to the Serum Diagnosis of Tumors.
- WELL** Nature of Anaphylaxis and Relations Between Anaphylaxis and Immunity.
- ROBINSON AND AULZ** Cardiac Disturbances in the Dog During Anaphylaxis.
- Blood**
- BOUD** The Mucous Channels and the Blood Stream as Alternative Routes of Infection.
- CHODURA** Leukocytic Inclusions of Döslle.
- CANOT** The Lymphocytosis of Infection.
- BYRON** Anemia as an Operative Risk.
- COLLIER** Operations on Patients with a Hemoglobin of 40 per cent or Less.
- SCHROCK** Thrombosis and Embolism Following Operation and Childbirth.
- Blood and Lymph Vessels**
- VAUGHAN T.** Cases of Aneurism Treated by the Maltz Method.
- REIGNAULT AND BOUCHET-LACOSTE** Occupational Aneurism of the Superficial Palmar Arch.
- FREEMAN** Arterio-Venous Anastomosis for Threatened Gangrene of the Foot.
- SHATTUCK** Occlusion of the Inferior Vena Cava as Result of Internal Trauma.
- Poisons**
- CROW** A New Method for the Differentiation of Certain of the Streptococci.
- KIRKNE** Results of Operative and Non-Operative Treatment of Abdominal Tuberculosis.
- TOOGAN** Colloidal Calcium in the Treatment of Cancer.
- LOES AND FLEISHER** Intravenous Injections of Various Substances in Animal Cancer.
- KATZ** On Collargol.
- Electrology**
- FREUD AND KAMMER** The Chemical Action of the Röntgen Rays and of Radium on Carcinoma.

GYNECOLOGY

- Uterus**
- GILLERSON** The Extended Vaginal Operation for Cancer of the Cervix Uteri.
- CELLER** The Radical Operation for Cancer of the Uterus.
- CLARK** The Radical Abdominal Operation for Cancer of the Uterus.
- WHEEL** The Extended Abdominal Radical Operation for Cancer of the Uterus.
- SANDWICH** Results of the Radical Abdominal Operation for Cancer of the Uterine Cervix; Report of 5 Cases.
- NEEL** Results after the Wertheim Operation for Carcinoma of the Uterus.
- FOLLOMSON AND VIOLET** The Study of Six Cases of Malignant Chorio-Epithelioma.
- MILLER** The Relation between Sarcoma of the Uterus and Its Bearings on X-ray Therapy of Uterine Myomata.
- FLEISCHMANN** Surgical Treatment of Myomata.
- BRITTAUER** Further Report of Cases of Dysmenorrhea Relieved by Navel Treatment.
- Mitery Description of Murphy's Method of Abdominal Hysterectomy**
- Adnexal and Peritubarian Conditions**
- GOSSET AND MARION** Neuro-epithelioma of the Ovary.
- MORLEY** On the Nature of the So-Called Ligaments of Mackenrodt.
- External Genitalia**
- SPAUDING** Valvo-Vaginitis in Children.
- WARD** Operation for the Cure of Rectocele and Restoration of the Function of the Pelvic Floor.
- Miscellaneous**
- MCDONALD** The Treatment of Leucorrhoea Due to Gonococcus Infection.
- POLAK** The Conduct of Gynecological and Obstetrical Operations in the Presence of Acute Chronic Endocarditis.
- KESLER** Etiology and Treatment of Pyelitis in the Female.

OBSTETRICS

Pregnancy and Its Complications

ENCKELMANN Psychoses of Pregnancy and the Influence of Pregnancy on Existing Psychic and Neurologic Diseases

HARRISON Myoma and Pregnancy: the Therapeutic Indications

HATNER Myoma and Pregnancy

VIARNA Mysectomy in Case of Gravid Uterus Recovery Continuation of Gestation

MCDONALD Bladder Troubles in Pregnancy; Cystoscopic study Based on 24 Cases

WEBSTER The Conduct of Gynecological Operations; also of Pregnancy and Labor in Acute and Chronic Affections of the Heart

GRIDGALL Case of Ovarian Pregnancy Its Full Tube Portals

ZOOKE Damages to the Kidney in Eclampsia

MILK Treatment of Eclampsia by Intravenous Injection of Normal Pregnancy Serum

GABRY The Conservative Treatment of Torsion of Pregnancy with Caisarean

WILLIAMS The Present Position of Abdominal Caesarean Section in Eclampsia

SCOTT Caesarean Section in Double Uterus and Double Vagina

VON KLUCK Uterus Bicornis as the Cause of Chronic Transverse Position St. Versula in One Case Caesarean Section in Another Case

Labour and Its Complications

CRAGG Under what Conditions should Uterine Inertia be Treated by Artificial Delivery

HARRISON Uterine Inertia; Its Treatment

Puerperium and Its Complications

WARD The Treatment of Puerperal Septic at the Sloane Hospital for Women

FIDLEY The Treatment of Puerperal Thrombophlebitis

Miscellaneous

TATUM Factors in the Formation of Skin Striations During Pregnancy

FAY Demonstration of the Infant Palmaris with Remarks on its Use in the Treatment of Aphyria

VERMILION Neonatalism

DOMAN Etiology Symptomatology and Surgical Treatment of Menstrual Hemorrhages in the New-born

RICE Chronic Vitis in the Uterine Wall 3 Years after the Last Pregnancy

LEVON The Difficulty of Producing Sterility by Operation on the Fallopian Tubes

ROOY The Use of Fetal Serum: Causes the Onset of Labor

PARL Hypophysectomy in Obstetrics

EDGAR Uterine Extract in Uterine Inertia

BOBBIE Amniocentesis in Obstetrics

GOOD A New Obstetrical Rubber Bag

MCDONALD Diagnosis of Early Pregnancy

GENITO-URINARY SURGERY

Kidney and Ureter

CAULK Incarcerations of the Renal Pelvis and Ureter

OPPENHEIMER Pyelitis

EXTREMESSKY The Pathological Physiology of Renal Decapsulation and the Indications and Contra-indications for the Operation

POISSON Contribution to the Surgery of Nephritis

HENNING Nephrectomy by Suspension with Transplanted Fascia

LEIGHT The Clinical Value and Interpretation of the Constant of Urea Secretion

FRONCK AND RICHNER Tests for Renal Sufficiency by Means of Phenolphthalein

STRASSMANN The Influence of Collapsed Pelvis on the Kidney and the Kidney Pelvis

Bladder, Urethra, and Penis

WOOLSEY Three Unusual Cases of Rupture of the Bladder

VAN DAM The Radical Treatment of Congenital Diverticulum of the Bladder

KELL AND LEWIS Skiagraphic Demonstration of Vesical Tumors

MILY Extension of the Bladder; an Operation of Necessity and Expediency

Genital Organs

JAMES TO SUMAN Scrotal Calcification Stimulating Nephrothrombosis

LEY Catheterization of the Ejaculatory Ducts

SURGERY OF THE EYE AND EAR

Eye

RA Scleral Decompression in the Treatment of Intra-ocular Tension

VERHOEFF The Effect of Chronic Glaucoma on the Central Retinal Vessels

REINERT The Management of Acute Hemorrhagic Glaucoma with Advanced Anterior Chamber

DESMAN The Surgical Treatment of Glaucoma with Special Reference to the Substatists for Indication

PARKER The Triple Operation for Glaucoma, with Exhibition of Patients

JOURNEAU Some Points in the History and Pathology of Trachoma and New Treatment for Chronic Trachoma

LA MOTHIE Infectious Suppurative Keratitis

POWELL The Report of Case of Ocular Cancer Successfully Treated by the Actual Cautery

REINERT Dystrophic Epithelial Cancer

HACK. A Case of Erosion of the Mucous Layer	3	Ear	
CARTWRIGHT. Case Showing the Result of Peritony	3	NELSON. A Suggestion on Phenol and Ichthylol in External Otitis	04
ALTER. Metastatic Purulent Ophthalmia (Endophthalmitis Septica)	3	BROWN. A Contribution to the Infant Temporal Bone in its Relation to the Mastoid Operation	04
GRUTTER. The Optic Chiasm in Purulent Otic Disease and Its Complications	3	BILLIE. Tibial Bone Transplantation in the Post-Operative Skull Wound	104

SURGERY OF THE NOSE, THROAT AND MOUTH

ROSS. Nerve Supply of Inferior Turbinal as Shown by Vital Staining		REILY. Adenoids	7
INGALLS. An Effusion and Easily Removable Nasal Packing	06	JACKSON. Decannulation and Extubation after Tracheotomy and Intubation Respectively	08
CARTER. A Case Showing Restoration of the Entire Nose by Rhinoplasty and Bone Transplantation	06	DANDROW. Congenital Membrane of the Larynx	09
McWILLIAMS. Rhinoplasty	06	ABER. Mahgum Disease of the Tongue and Mouth	09
HARKER. Exhibition of Specimens from a Case of Separation of the Antrum due to Aspergillus Fungus, with Short Note of the Case	7	GOODE and DEWEY. Cancer of the Tongue in Young Subject	09

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNOLOGY
Operation—Surgery and Technique
Aseptic and Antiseptic Surgery
Anesthetics
Surgical Instruments and Apparatus

SURGERY OF THE HEAD AND NECK
Head
Neck

SURGERY OF THE CHEST
Chest Wall and Breast
Trachea and Lungs
Heart and Vascular System
Pharynx and Esophagus

SURGERY OF THE ABDOMEN
Abdominal Wall and Peritoneum
Gastro-Intestinal Tract
Liver, Pancreas and Spleen
Miscellaneous

SURGERY OF THE EXTREMITIES
Diseases of the Bones, Joints, Etc
Fractures and Dislocations
Surgery of the Bones, Joints, Etc

ORTHOPEDIC SURGERY
Diseases and Deformities of the Spine
Malformations and Deformities

SURGERY OF THE NERVOUS SYSTEM

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, Etc.	1
Sera, Vaccines, and Ferments	12
Blood	2
Blood and Lymph Vessels	3
Poisons	3
Surgical Therapeutics	24
Surgical Anatomy	24
Electrology	24
Military and Naval Surgery	24
Surgical Diagnosis	5

GYNECOLOGY

Uterus	5
Adnexal and Puerperal Conditions	5
External Genitalia	26
Miscellaneous	26

OBSTETRICS

Pregnancy and Its Complications	26
Labor and Its Complications	27
Puerperium and Its Complications	27
Miscellaneous	127

GENITO-URINARY SURGERY

Kidney and Ureter	28
Bladder, Urethra and Penis	120
Genital Organs	29
Miscellaneous	30

SURGERY OF THE EYE AND EAR

Eye	30
Ear	3

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth	3
-------------------------	---

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Lewis S. McMurtry Willy Meyer James E. Moore Fred T. Murphy John B. Murphy James M. Neff
 Edward H. Nichols A. J. Ockner Rowell Park Charles H. Peck J. R. Pennington S. C. Pimmar
 Charles A. Powers Joseph Rasehoff H. M. Richter Emmet Rixford H. A. Royster W. E. Schroeder
 Charles L. Scudder M. G. Seelig E. J. Semm John E. Summers James E. Thompson Herman Tuholake
 George Tully Vaughan John R. Wathen. CANADA: E. A. Archibald J. E. Armstrong H. A. Bruce
 Irving J. Cameron Jasper Halpenny J. Alex Hutchison Francis J. Sheppard F. H. Starr T. D. Walker.
 ENGLAND: H. Branton Angus Arthur H. Barker W. Watson Cheyne W. Simpson Handley W. Arbuthnot
 Lane G. H. Makins Robert M'Kee B. G. A. Meynham Rushton Parker Harold J. Stiles Gordon Taylor.

GYNECOLOGY AND OBSTETRICS

AMERICA Frank T. Andrews Brooks M. Anspach W. E. Ashton J. M. Baldy Chauncey W. Barrett
 Herman J. Boldt J. Wesley Boyce LeRoy Brown Henry T. Byford John G. Clark Edw. E. Cragin
 Thomas B. Cullen Edward P. Davis Joseph B. DeLee Robert L. Dickinson W. A. Newman Dorland E. C.
 Dudley Hugo Ehrenfest C. S. Elder Palmer Finley Henry D. Fry George Gelfand J. Riddle Goffe
 Seth C. Gordon Barton C. Hirst Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krug
 L. J. Ladinski H. F. Lewis Frank W. Lynch Walter P. Manten James W. Markoe E. E. Montgomery
 Henry P. Newman George H. Noble Charles E. Paddeck Charles E. Penrose Reuben Petersen John O.
 Polak Wm. M. Polk Edward Reynolds Ezra Rice John A. Sampson F. F. Simpson Richard R. Smith
 William S. Stone H. M. Stone William E. Studdiford Frederick J. Tassig Howard C. Taylor Hiram
 K. Vinberg W. F. B. Wakefield George O. Ward, J. William H. W. then J. Whitridge Williams.
 CANADA W. W. Chipman William Gardner F. W. Marlow E. C. McIlwraith V. P. W. Ives A. H.
 Wright. ENGLAND Russell Andrews Thomas W. Eden W. E. Fothergill T. B. Haller Thomas Wilson.
 SCOTLAND William Fardyce J. M. Moore Kerr. IRELAND: Henry Jelliffe Hastings Tweedy
 AUSTRALIA: Ralph Worrall. SOUTH AFRICA: H. Tempel Maxwell. INDIA Kedarnath Das.

GENITO-URINARY SURGERY

AMERICA Wm. L. Bann Wm. T. Bealfield Joseph L. Boeken L. W. Brauerman Hugh Cabot John
 R. Carrk Charles H. Chetwood John H. Cunningham J. S. Kleenstaedt Ramon Gutierrez Francis R.
 Hagner Robert Herbst Edward L. Kayes, J. Gustav Kofacher F. Krissel V. D. Lespinasse
 Bradford Lewis G. Frank Lydston Granville MacGowan L. E. Schmidt J. Bentley Squier B. A. Thomas
 Wm. H. Wishard Hugh H. Young Joseph Zolner. ENGLAND T. W. Thomson Walker John G. Pardee.
 INDIA: Mrigendra Lal Mukta.

ORTHOPEDIC SURGERY

AMERICA: E. C. Abbott Nathaniel Allison W. S. Baer Gwilym G. Davis Albert G. Freiberg Arthur
 J. Gillelte Virgil P. Gilney Joel E. Goldthwait G. W. Irving Robert W. Lovett George B. Packard John
 L. Porter John Riddle Edwin W. Ryanse Harry M. Sherman David Silver H. L. T. ylor H. Augustus
 Wilson James E. Young. CANADA: A. Mackenzie Forbes Herbert P. H. Galloway Clarence L. Starr.
 ENGLAND: Robert Jones A. H. Tabby George A. Wright.

INTERNATIONAL ABSTRACT OF SURGERY

CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EYE

AMERICA C. H. Beard E. V. L. Brown H. D. Brown Yard H. Hales Edward Jackson W. P. Mayr
William Campbell Peasey Brown Peasey Robert L. Randolph John E. Weeks Cassius D. Westcott WELSH
H. Wilder Casey A. Wood Hiram Woods. ENGLAND; J. B. Lawford W. T. Holmes Spicer SCOTLAND
George A. Berry A. Makins Ramsey

SURGERY OF THE EAR

AMERICA Ewing W. Day Max A. Goldstein J. F. McKernan Norval H. Pierce S. MacCann Smith.
CANADA H. S. Mirkett. ENGLAND A. H. Cheate SCOTLAND: A. Logan Turner. IRELAND;
Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA Joseph C. Beck T. Melville Hardie Thomas J. Harris Charles R. Holmes E. Fletcher
Lagale Chevalier Jackson John N. MacKinnon G. Hudson Mahan George Paul Marquis John Edwin
Rhodes AUSTRALIA A. J. Brady A. L. Kenney INDIA. P. O'Kinealy

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS—General Surgery JOHN L. PORTER—Orthopedic Surgery
CAREY CULBERTSON and CHARLES E. REED WILLIAM H. WILDER—Surgery of the Eye
—Gynecology and Obstetrics NORVAL H. PIERCE—Surgery of the Ear
LOUIS E. SCHMIDT—Genito-Urinary Surgery T. MELVILLE HARDIE—Nose and Throat

GENERAL SURGERY

AMERICA Carroll W. Allen E. K. Armstrong Donald C. Balfour H. R. Baskinger Georg E. Bailey
B. M. Bernheim Barney Brooks Walter H. Ehlig J. P. Carnett Otto Castle Phillips M. Chase
James F. Churchill Isidore Cohn Karl Connell Lewis B. Crawford V. C. David Nathan S. Davis III
D. L. Despard L. G. Dwan Frederick G. Dye A. B. Eustace Elie Fickel Herman B. Gossner Donald
C. Gordon Terr Wagner Harner Christian D. Hauch James P. Henderson Charles Gordon Heyd
Harold P. Kahn Lucian H. Landry Felix A. Laroe Halsey B. Leder Urban Mees Wm. Carpenter
MacCarty R. F. McGrath R. W. McNally Alfred H. Neekren Matthew W. Pickard Maurice C. Placoffs
Eugen H. Poel H. A. Potts Martha E. Rehling E. C. Riebel Floyd Riley M. J. Siefert J. H. Skiles
Harry G. Sloan John Smythe Carl R. Stricks Lester H. Tinklake Henry J. Van den Berg W. M. Wilkinson
Eugene M. Williams Erwin P. Zehner ENGLAND; James E. Adams Percival Cole Arthur Edwards
I. H. Houghton Robert E. Kelly William G. Matt R. C. Mayberry Eric P. Gault T. B. Legg Felix Reed
E. O. Schleringer B. Sengster Simonds Harold Upcott O. G. Williams. SCOTLAND John Fraser
A. P. Mitchell Henry Wade D. P. D. White.

GYNECOLOGY AND OBSTETRICS

AMERICA E. W. Bandler A. C. Beck Daniel L. Borden D. H. Boyd Anna M. Bramwerth E. A.
Bollard Eugene Cary W. H. Cary Sidney A. Chaffert Edward L. Cornell A. H. Curtis A. Henry Dunn
F. C. Eusebio Lillian K. P. Farrar W. B. Fehring Howard G. Garwood Maurice J. Gahgal Luba E.
Goldsmith C. G. Grimes N. Sprent Heaney T. Lancraft Hale D. B. Hillis John C. Hirst F. C. Irving

INTERNATIONAL ABSTRACT OF SURGERY

ABSTRACT EDITORIAL STAFF—Continued

ix

GYNECOLOGY AND OBSTETRICS—Continued

L. A. Johnke Norman L. Knipe George W. Koznak H. W. Kostmayer Julius Lachner Herman Leber
 Rachel Lerin Donald Macomber Harry B. Matthews L. P. McKigan Arthur A. Merce Ross McPherson
 George W. Osterwidge Albert E. Pagan George W. Partridge Wm. D. Phillips Reginald M. Rawls
 L. W. Bauer Heßeder Schiller A. H. Schmidt Henry Schmitt Edward Schumann Emil Schwarz
 J. M. Simmons Camille J. Stamm Arnold Sturmdorf George de Tarnowsky S. B. Tyson Marie L. White
 P. F. Williams R. E. Wobus. CANADA: James E. Goodall H. M. Little. ENGLAND: Harold Chapple
 Harold Clifford F. H. Lacey W. Fletcher Shaw Clifford White. SCOTLAND: H. Leith Murray
 J. H. Whitte.

GENITO-URINARY SURGERY

AMERICA Charles E. Barnett J. D. Barney B. S. Barringer Horace Blaney Theodore Brondewitz
 H. A. Fowler Hector G. Fuller F. R. Gardner Louis Gross Thomas C. Holloway H. G. Hamer James J.
 Houghton Joseph Ham Robert H. Ivy L. S. Koll H. A. Krue Herman L. Kretschmer Martin
 Kretschmer Samuel Logan William E. Lower Harvey A. Moore Stirling W. Mooreland A. Nelson
 C. O'Crewey R. F. O'Neill H. D. Orr G. M. Petackin C. D. Pickrell H. J. Polkey Jarosl. Radde
 Edmund L. Sanders S. Wm. Schayra George G. Smith A. C. Stokes L. L. Ten Broeck T. B. van Renswet
 H. W. E. Walker Carl Lewis Wheeler. ENGLAND: J. Swift Joly Sidney G. Macdonald.

ORTHOPEDIC SURGERY

AMERICA Charles A. Andrews George E. Bennett Howard E. Bicker Lloyd T. Brown C. Herman
 Bechoir C. C. Chatterton Robert R. Colford Alex R. Calvin Arthur J. Davidson Frank D. Dickson Albert
 Khratfield William G. Eyring F. J. Gammon M. S. Henderson Ph. Hoffman C. M. Jacobs S. F. Jones
 F. C. Kidner F. W. Lamb Prescott LeBrenton Paul B. Magnuson George J. McChesney H. W. Orr
 Archer O'Reilly H. A. Pargree W. W. Phammer Robert O. Ritter J. W. Sever John J. Shaw Charles A.
 Stone H. B. Thomas James O. Wallace James T. Watkins DeForest P. Willard H. W. Wilcox. CANADA:
 D. Gordon Evans. ENGLAND: Howard Beck E. Rock Carling Naughton Dunn E. Lansing Evans
 W. H. Hay John Morley T. P. McMurray Charles Roberts G. D. Telford.

SURGERY OF THE EYE

AMERICA E. W. Alexander H. M. Brinkerhoff C. G. Daxling T. J. Dimitry J. B. Ellis E. B. Fowler
 Lewis J. Goldbach Harry S. Gracie J. Milton Orlescum E. F. Krug Francis Lane Walter W. Watson
 ENGLAND F. J. Cunningham M. L. Heyburn Foster Moore. SCOTLAND John Pearson Arthur Hy H.
 Stahler Ramsey H. Traquair James A. Wilson.

SURGERY OF THE EAR

AMERICA: H. Beattie Brown J. R. Fletcher E. B. Fowler A. Spencer Kaufman Robert L. Loughran
 W. H. Theobald T. C. Winters. CANADA H. W. Jamieson. ENGLAND: G. J. Jenkins. SCOTLAND:
 J. S. Fraser IRELAND: T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA George M. Coates Carl Fischer R. Clyde Lynch Ellen J. Patterson. AUSTRALIA V.
 Moore. INDIA: John T. Murphy

AN IMPORTANT FEATURE OF THE INTERNATIONAL ABSTRACT OF SURGERY

Surgical literature, not alone of the English speaking countries, but of all countries, has, in the opinion of many of the most prominent men in the profession, been decidedly deficient in one respect, that of furnishing under one cover a comprehensive review of all the worthy surgical articles appearing in the numerous medical publications of the world.

To supply this demand THE INTERNATIONAL ABSTRACT OF SURGERY was established in February of this year as a supplementary publication to SURGERY GYNECOLOGY AND OBSTETRICS. In addition to furnishing abstracts of articles that appear either in regular publications or in the form of monographs we propose to include as well abstracts of the important papers read at meetings of all the leading surgical and other special societies throughout the world. In this way our readers are supplied with the meat of the transactions of these important societies at the earliest possible date.

In this number will be found abstracts of the important papers read at the Congress of American Physicians and Surgeons held in Washington in May, which includes the transactions of the American Surgical Association, the American Gynecological Society, the American Association of Genito-Urinary Surgeons, the American Orthopedic Association, the American Dermatological Association, the American Neurological Association, the Association of American Physicians, the American Association of Pathologists and Bacteriologists. Abstracts of the transactions of the American Ophthalmological Society, American Otological Society, and American Laryngological Association will appear in the August issue, being omitted from this number because of lack of space.

In the same manner there will appear beginning in this issue comprehensive abstracts of papers read at the recent sessions of the two most important surgical societies of Germany, Deutsche chirurgische Kongress and Deutsche Gesellschaft für Gynäkologie.

COLLABORATING EDITORIAL STAFF FOR FRANCE AND GERMANY

Journal de Chirurgie.

B. CUKÉO J. DUMONT A. GOSSET P. LECÈNE, CH. LEMORMANT
R. PROUST.

Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete

A. BIER, A. FRH. VON EISELSBERG C. FRANK, O. HILDEBRAND
A. KÖHLER, E. KÖSTER, F. DE QUERVAIN V. SCHMIEDEN.

Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete.

O. BEUTNER, A. DÖDERLEIN PH. JUNG B. KRÖNIG, C. MENZ,
O. PANKOW E. RUNGE, L. WERTHEIM, W. ZANGEMEISTER.

INTERNATIONAL ABSTRACT OF SURGERY

JULY 1913

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

ANESTHETICS

Hornowski. The Glands of Internal Secretion in Case in which Death was Due to Chloroform (Sędzić wskutek chloroformu, groźny wypadek organów wydzielania). *Łowicki Tygodnik Lek.* 9.3.1913, 97.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The author describes the case of a male 33 years of age in whom death occurred twenty-four hours after extirpation of the lacrimal glands. Collapse symptoms supervened during the period of anesthesia. At autopsy the suprarenals showed endarteritis, arteriosclerosis and marked fibrosis, so that the relation between the normal adrenal cortex and the pathologically involved cortex was as 1:3 in the left gland, while on the right the proportion was as 1:10. Comparative weights showed the functioning part of both cortices to weigh 50 gm. while the medullary parts weighed but 0.33 gm. The chromaffin cells of the right adrenal stained very poorly as did those of the sympathetic ganglion. As far as changes in the other glands of internal secretion are concerned the parathyroids showed very few oxyphile cells, the thyroid, which weighed 43 gm., contained 7 adenomatous tumors 3-5 mm. in diameter. These cell aggregations, microscopically appeared like the thyroid in Basedow's disease according to Kocher's description showing epithelial hyperplasia and small amount of colloid. The other glands of internal secretion showed no changes. Only traces of the thymus were found imbedded in the fatty tissue of the mediastinum. Inasmuch as the heart showed no pathological changes, the author is of the opinion that death was due to adrenal insufficiency. Hornowski further discusses the questions why with such marked change in the suprarenals, no signs of Addison's disease were present, and also that the marked alteration in the thyroid produced no signs or symptoms of Basedow's disease.

He finally reaches the conclusion that both diseases are probably polyglandular diseases and not dependent upon lesions of the adrenals or thyroid.

J. HORNOWSKI.

Jounesco. General Spinal Anesthesia (Über die allgemeine Rückenmarksanästhesie). *Zentralbl. f. Chir.* 9.3.1913, 450.

By Zentralbl. f. d. ges. Chir. u. d. Gynäk.

According to the experience of Jounesco an injection of stovaine combined with nitrat of strychnia may be made at any point of the spinal canal and without danger to the patient. In 958 operations he had two deaths, which in part were attributable to other causes. The injections produce a complete anesthesia from head to foot. For anesthesia of the head, neck, upper extremities and thorax, the injections should be made between the first and second dorsal vertebrae for anesthesia of the thoraco-abdominal region, the abdomen, pelvis and lower extremities, it should be made between the twelfth dorsal and first lumbar vertebrae. The preparations are kept sterile in two ampoules, according to the method of Racowitz. One contains the proper dose for pure stovaine, the other an aqueous solution of strychnia. One ccm. of the strychnia solution is drawn into the sterile syringe and emptied into the ampoule containing the stovaine; the solution is then ready for use. The maximum dose of stovaine is as follows: For adults lower portion of body 6 cc., upper portion of body 3-5 cc. For children and adolescents lower portion of body 4 cc., upper portion of body 0.5-1 cc. The dose of strychnia for anesthesia of the lower portion of the body is 1 mg. for each cc. in adults, in younger individuals 0.5 mg. for anesthesia of the upper portion of the body the dose of strychnia is 1 mg. in adults and 0.5-0.5 mg. per cc. in children and adolescents. If the general

condition is bad, as in acholia, in acute or chronic infections, shock or cute anemia, $\frac{1}{2}$ to $\frac{3}{4}$ of the original dosage is sufficient. To avoid cerebral anemia, perspiration and similar conditions, the patient should be placed in dorsal position immediately after the puncture. Still better puncture may be performed in the lateral position. TIERCELL.

II 7716 Hyoscine-Morphia Anesthesia for Alcohol Injection in Neuralgia. *Lancet* Lond. 9.3.1914. By Surg. Gynec. & Obst.

The author has treated 11 cases of trigeminal neuralgia besides numerous cases of supra-orbital and other forms of neuralgia. He doubts the possibility of finding with needle the nerve trunks of the three divisions of the fifth nerve and of injecting them with alcohol, especially at their deep foramina of exit from the skull, without causing so much pain as to make it a practical impossibility for a large proportion of subjects, especially ones of nervous type and already worn out with pain. He has always used the route described by Levy and Baudouin and also by Sicard, which the needle is thrust through the side of the cheek underneath the zygoma into the zygomatic fossa. The only satisfactory proof that the nerve had been properly injected is anesthesia of the skin and mucous membrane in the distribution of the nerve. Strong alcohol, when injected into the nerve trunk, instantly causes destruction of the nerve fibres with which it comes in contact. As a rule he gives $\frac{1}{2}$ gr. morphia with 50 gr. hyoscine hypodermically into the arm 30 minutes before commencing the injection process. When the needle is approaching the foramen ovale the patient usually shows some symptoms of sensitiveness, though it is not until the nerve is actually struck that a tingling sensation is felt in the lower lip and tongue. When this occurs the stylet should be removed from the needle and syringe filled with 34 per cent eucaine solution fitted on, and a few drops then slowly injected.

After the lapse of half a minute a few drops of 90 per cent alcohol should be injected slowly into the same spot. Almost instantly as soon as a few drops of alcohol have been injected into the nerve sensation of touch and pinprick becomes blunted on the lip and slowly, two or three drops at a time, more spirit is injected until the anesthesia is complete and the pinprick is not felt at all even as pressure. Usually 1 to 2 cc. are required to produce this effect. The injection of the second division in the sphenomaxillary fossa is much less painful than the corresponding process for the third division in the foramen ovale. However the extraordinary calming effect of the hyoscine and morphine is most valuable and patients who are suffering severe spasms of pain, or who are very nervous, will keep quite quiet and peaceful during the whole process, and yet will be able to answer at once to the skin tests for anesthesia. He has seen only one case in which any ill effects occurred and this was only temporary.

DONALD C. BURROUGHS.

Sievers Paralysis of the Phrenic Nerve in Pleurus Anesthesia after Kulenkampff (Pneumothorax nach Pleuraanästhesie nach Kulenkampff). *Zentralbl. f. Chir.* 9.3.14, 113. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Fifteen minutes after the usual pleurus anesthesia with 50 cc. of a 5% novocaine-hydrocarbon solution for parasthesia of the ulnar nerve, the patient began to complain of pain in the right side of his chest. At the same time a crepulous respiration like that in a dry pleurisy developed. There was pain on pressure in the region of the 8-9 ribs, and a diminished excursion of the lower border of the lung on deep respiration. On examining with the X-ray there was difference of the width of a hand from the left side on deep respiration. During the next three days the disturbances diminished quickly, only mild crepitus and diminished breath sounds could be determined. On the fourth day X-ray again showed normal conditions.

The author discusses the possibility of the influence of the endoneural injection into the main trunk of the phrenic nerve in the neck, producing subscapular diffusion, and an influence on the anterior and medial branches which descend to the dome of the pleura. The first method seems to him improbable. The pain can be explained by the effect on the sensitive fibres of the nerve. The fact that the symptoms do not regress as soon as the effect of the anesthesia is worn off leads one to think of mechanical injuries (hemorrhage escape of air from the punctured lung). The first danger can develop only after an already existing disease of the lung—bilateral paralysis of the diaphragm does not result in asphyxia according to Duchenne. That the condition resulted from an injection into the pleura, the author thinks improbable because no pleuritis developed.

KULENKAMPFF.

Boothby: Present Day Methods of Anesthesia. *J. Maine M. Assn.* 9.3.14. By Surg., Gynec. & Obst.

From the point of view of the recent research work in anesthesia, Boothby discusses the subject under three distinct headings: (1) The pharmacological problem, (2) the mechanical problem, and (3) the physiological problem.

Under the pharmacological problem is considered the advantages of nitrous oxide-oxygen-ether as opposed to ordinary ether, and the former is strongly approved if the following fundamental principles are observed: (1) avoidance of cyanosis at any time (2) relaxation obtained by the addition of proper amounts of ether (3) the availability of an apparatus such as he has recently described in conjunction with Cotton, that will (1) deliver constant, even supply of nitrous oxide and oxygen, (2) render the supply visible so that the relative amounts of each gas can be estimated at a glance (3) possess an efficient ether chamber, and (4) fitted with an air-tight face-piece. He believes that while nitrous oxide anesthesia is far more difficult to conduct

safely and satisfactorily than ordinary ether and requires large experience and costly apparatus, yet when mastered it is at present the best method.

In connection with the mechanical problem, which deals with the maintaining of free current of air through the mouth, pharynx, and larynx, Boothby mentions three methods—the method of intra-tracheal insufflation originated by Meitzer and Auer the Crile nasal tubes, and the Davis-Sewall mouth gag. Intratracheal insufflation in intrathoracic operations is, without question, the method to be used. Its advantages in tongue operations are very great. Its value is debatable in intracranial operations and elsewhere it is not indicated except for obtaining practice in the method. In the hands of those well trained in its difficulties and the avoidable dangers, it is justifiably safe. For those untrained in its use, the Crile nasal tubes or Davis-Sewall mouth gags are preferable.

The physiology of respiration is also discussed at some length, and attention is called to the dangers of apnea after period of excessive breathing as well as the possibility that capnia is one of the conditions causing surgical shock.

Bloodgood Studies in Blood Pressure Before, During and After Operations Under Local and General Anesthetics. *T. Am. Gynec. Soc.,* 9 J. May. By SORG, Gynec. & Obst.

Now that the mortality due to infection from faulty technique has been practically eliminated the mortality from shock due to the trauma of the operation and the general anesthetic—chloroform or ether—has become more prominent in the minds of observing surgeons.

The two factors over which we have the greatest control in shock during operation are the trauma of the operative procedure and the toxicity of the general anesthetic.

Ether has been substituted for chloroform, because it is less toxic. At the present time nitrous oxide and oxygen are taking the place of ether for the same reason. Trauma from the operative manipulations can be reduced to a certain extent by gentle nose and cure. There is no doubt, however, that theoretically the employment of local anesthesia during the operation will block most, or all, sensory afferent nerve impulses. In this way the brain can be temporarily disconnected from the wound.

Unfortunately for the development of this refinement of technique many operations can be performed on the ordinary individual with low mortality in spite of toxic general anesthesia and rough handling of the wound. Many surgeons do not realize this element in their mortality in the post-operative complications, discomforts, and longer period of disability.

In order to appreciate the sensitiveness of the different tissues and the difficulty of successfully anesthetizing them by local anesthesia, a surgeon must perform as many operations under local anesthesia as possible. Only in this way will he

train himself to successfully and completely isolate the brain from the field of operation. It is quite possible to infiltrate the tissues partially without producing anesthesia. If the patient is awake, the surgeon will be informed at once.

Under chloroform and ether the patient remains quiet in spite of the most painful manipulations so one would never know when local anesthesia were employed in conjunction with these general anesthetics, whether it was accomplishing its object.

Nitrous oxide and oxygen has therefore a double advantage over ether and chloroform. It is less toxic, and the general anesthesia is so light that painful manipulations excite reflexes. The patients move, muscles contract, so that under this general anesthesia one has almost as good an index of the efficacy of one's local infiltrations as when the patient is awake.

The nitrous oxide and oxygen therefore obliterates psychic shock and produces no toxic shock. The local anesthesia obliterates the traumatic shock.

From the author's observations extending now over a period of more than three years, he has become convinced that the best index to the patient's condition before, during and after operation is the behavior of the blood pressure. During a successful operation under local anesthesia, with or without nitrous oxide and oxygen, the blood pressure remains more or less uniform. Sudden rises in the blood pressure indicate painful manipulations. When continued, these manipulations are followed by a fall of the blood pressure. This means shock. When earlier in the operation these painful manipulations are followed by a fall of the blood pressure, the surgeon knows that his patient is in poor condition to withstand further traumatic shock.

Successfully employed, the combination of nitrous oxide and oxygen with local anesthesia will reduce the mortality in all these operations in which the mortality is due to shock. The author is confident of this. In all cases it will diminish the post-operative complications and discomforts and shorten the period of disability. These statements are based upon a large number of cases, but chiefly upon an observation of fifty resections of the colon. In ten cases there was, in addition, an operation upon the stomach, 8 resections, pyloroplasties. All of these patients are bad operative risks. There was not a single death from shock, although the average time of operation was at least three hours. There were three deaths, one from acidosis present before operation, not relieved by operation, one from thrombosis and embolism, one from late intestinal obstruction. In the majority of these cases the convalescence after operation was less trying to the patient than after an ordinary quick appendectomy under ether narcosis and not combined with local anesthesia.

The author would not dare to attempt the resection of the colon under the older methods of anesthesia combined with the most rapid operation but without local anesthesia.

SURGERY OF THE HEAD AND NECK

HEAD

Alessandri and Chiavaro Resection of Three-fourths of the Lower Jaw by the Buccal Route and New Method for Mandibular Prosthesis (*Réssection des trois quarts de la mâchoire inférieure par voie buccale et nouvelle méthode de prothèse mandibulaire définitive*). *Pedidia*, Rome, 9 3 23, 49. By Journal de Chirurgie.

A young girl, 18 years old had noticed three years previously a tumor in the right half of the lower jaw. It was operated upon and she was told that it contained three teeth. After the operation the tumor of the bone persisted and grew in size causing fleshy swelling on the gum.

On examination of the face it was found to be greatly deformed by a swelling in the lower part of the right cheek. The tumor which was the size of an orange, was irregularly ovoid in shape, with its long axis directed backward and to the left. It presented a smooth surface.

Operation. Two small incisions were made, one in the left submental region and one behind the right ascending branch about half way up. Alessandri cut the bone at these two points with Gigli saw thus separating the whole of the diseased portion of the bone from the horizontal part on the left side to the vertical part on the right. He then rapidly removed the fragment by an incision in the gum anteriorly and in the buccal floor posteriorly with cutting of the muscular attachments packing and partial closure of the incision in the mucosa. Chiavaro apparatus for prosthesis was used. Five weeks later some diaphragms between the tongue and the floor of the mouth were cut. One month and one-half later the wound had healed completely and the apparatus was firmly in place. The cure has been permanent and the result excellent both from an aesthetic and functional point of view.

The fragment removed consisted of the whole of the right horizontal part and 1 cm. of the left, the right angle and 1 cm. of the right ascending portion. There was normal bone at the two ends from the angle up on the right and from the symphysis on the left. The intervening portion was deformed by tumor which had enlarged the bone, especially in front, where a great part of the cortex was destroyed and there appeared a fleshy mass which was partly broken down and contained regions infiltrated with blood.

Histologically it was a mixed sarcoma with predominance of spindle cells and many giant cells.

This as the second case in which Alessandri had performed resection of the lower jaw for perikontal sarcoma and used Chiavaro apparatus. The result in the first case was good as here though recurrence necessitated his doing the operation by the external route.

He insists that it is better to perform more or less

complete resections or disarticulations of the jaw by the intrabuccal method, though it is more difficult. Not only does one thus avoid disfiguring scar but also this method is almost essential for the application of the prosthetic apparatus of Chiavaro.

In the second part of the paper which has many illustrations, Chiavaro describes the technique which he used in this case in the construction and application of the apparatus for prosthesis. He then outlines his experiences with heavy prosthetic apparatus, temporary or permanent, and points the advantages of his over other methods, especially those of Martin, and ends with the following conclusions.

Immediate temporary suppression of the apparatus for prosthesis with rubber which does not offer sufficient resistance to the cicatricial contraction of the soft parts permits it to be raised up by the floor of the mouth against the remnants of bone, here it causes pressure ulcers to form and in each of which cases it is necessary to replace the apparatus properly. Suppression of the wings is maintained after the application of heavy permanent prosthetic apparatus. A serious defect in mastication as the lateral movements of the jaw are inhibited follows when these are used.

The weight and shape of the apparatus prevents the cicatricial contractions of the soft parts and serves to suppress the tendency to fixation which renders mastication and pronunciation difficult and starts irritation and inflammation of the tissues.

In case of disarticulation of the lower jaw the use of heavy prosthetic apparatus has the following advantages.

Suppression of the ascending branches of the apparatus which are the cause of painful irritation of the articular surfaces at the base of the skull on account of the constant cicatricial retraction of the roof of the mouth.

Suppression of the palatine plate, for the heavy apparatus remains in place on account of its light and special form.

A. BARNET.

Hudson Sub-Temporal Muscle Draining by the Aid of Silver Wire Drainage as in Cases of Congenital Hydrocephalus. *Ann Surg*, Phila., 9 3, 1912, 338. By Surg., Gynec. & Obst.

This paper has to do with description of the technique of the operation as elaborated by the author.

An incision is made posterior and above the right ear down to the temporal muscle. The muscle is then freed from its attachment to the bone and the skull and dura opened. A long puncturing tube is then inserted into the brain until the cerebrospinal fluid flows from the open end. A permanent drainage tube is then inserted over the puncture tube and its outer end is connected to silver drainage

mat. This mat was previously fixed under the temporal muscle as soon as it was freed from the skull. The muscle is now carefully sutured in place with the finest black silk and the scalp closed with the same material.

The operation must be carried out under absolutely aseptic conditions. Several illustrations are given in the article showing the mats and tubes used in the operation.

JAMES H. SKILES.

Cushing. Concerning the Symptomatic Differentiation between Disorders of the Two Lobes of the Pituitary Body with Notes on a Syndrome Accredited to Hyperplasia of the Anterior and Secretory Stroma or Insufficiency of the Posterior Lobe. *Am. J. M. Sc.* 9:3, cxiv, 53.

By Surg. Gynec. & Obst.

The author assumes that every gland of internal secretion has a definite clinical picture associated with diminution or absence of its secretion and on the other hand that a perversion or excess of the secretion of the gland will give a picture which is exactly opposite. The clinical pictures associated with diminution or lack of secretion of the various glands of internal secretion have been pretty well worked out, e.g., in the case of the adrenal and the associated Addison's disease, thyroid insufficiency giving the clinical picture of myxedema, parathyroid insufficiency giving the picture of tetany, insufficiency of the islands of Langerhans giving the condition of diabetes, and mutilating operations on the generative organs have given many opportunities to observe the effect produced by eliminating the internal secretions from these organs.

The hypophysis has been considered, until very recently as whole. But further experimental and clinical evidence has shown that the gland has a dualistic nature and that the functions of the two parts are very different. The neuro-epithelial portion, the posterior lobe, discharges its secretion into the cerebro-spinal fluid, therefore this part of the body is a gland of external secretion, since it does not discharge directly into the blood. The strictly epithelial portion, the anterior lobe, is a typical gland of internal secretion, as it discharges its secretions directly into the blood stream.

The anterior lobe elaborates a harmony which stimulates growth and is chiefly related to factors of skeletal development. An excess of the secretion from the anterior lobe produces the clinical picture of acromegaly. The posterior lobe has to do especially with metabolic processes and especially with the assimilation of carbohydrates. A deficiency of its secretion leads to a noticeable increase in the tolerance for sugars with associated tendency to adiposity, subnormal temperature, somnolence, dry skin, polydipsia, and polyuria, loss of hair, characteristic psychic, often epileptiform, disturbances, etc.—a sort of pituitary myxedema, as it were. An excess of posterior lobe secretion, on the other hand, causes tissue waste with loss of flesh, relative intolerance for carbohydrates, often with

spontaneous glycosuria, a moist skin, etc., symptoms the reverse of the above. Moreover secondary symptoms referable to other glands of internal secretion occur especially in reference to the generative organs. Apparently there is an increased activity on the part of the generative organs when there is hypophyseal hyperplasia and there is undoubtedly a decrease, even lack of development or atrophy when there is a hypoplasia of the hypophysis. As to which lobe this phenomenon is due there is a question but the author inclines toward the belief that it is due to changes occurring in the posterior lobe. Furthermore there may be clinical pictures which seem to be due to an increased secretion from one part of the gland and a decreased secretion from the other.

The acromegalic syndrome shows the picture of gigantism, if the hyperplasia takes place before epiphyseal union, or as more or less acromegalic changes if after epiphyseal union. In all but three of a series of fourteen cases coming under the author's care there were signs not only of an increased anterior lobe secretion but a decreased posterior lobe secretion. These latter were increased adiposity, marked increase in tolerance for carbohydrates, tendency toward somnolence, subnormal temperature, anaphrodisia. On the other hand, in the early stages of acromegaly there is apt to be the reverse picture, namely, defective metabolism, spontaneous glycosuria, loss of flesh, etc.

In the syndrome of dystrophia adiposogenitalis the picture is due to a hyposecretion of both the anterior and posterior lobes. There is imperfect skeletal formation if the condition has come early in life, and the associated symptoms referable to the posterior lobe, such as increased adiposity, defective development of the generative organs, somnolence, increased sugar tolerance, etc.

The syndrome of overgrowth with adiposity is supposed, by the author, to be due to an increased secretion of the anterior lobe and decreased secretion of the posterior. Three recent cases coming under the author's notice are cited. These cases all showed enormous skeletal development for their ages and marked adiposity. They all showed lowered mental activity, two showed very high sugar tolerance and the other could not be tested as regards this point, as quantities over 50 grams could not be retained. Several showed convulsory symptoms, one being an epileptic. They all showed lessened sexual activity. One showed general increased cranial pressure phenomena.

JAMES H. SKILES.

Fraser: The Pituitary Body in Disease; the Method and the Results of Surgical Intervention. *Proc. M. J.* 9:3, xvi, 43.

By Surg. Gynec. & Obst.

Though the surgery of the hypophysis is a development of comparatively recent years, Fraser feels the results have been sufficiently gratifying at least to offer promising field and to assure measure of

relief to these incurable conditions. The anatomist, physiologist and surgeon have all been working to solve the various problems connected with pituitary disorders, and the distinct schools have arisen—one claiming that it is merely a rudimentary organ and the other that it cannot co-exist when the gland ceases to functionate. It has been proved conclusively, however, that certain very serious disorders have a very direct relation to either hyperplasia or non-neoplastic enlargement of the pituitary body. If the services of the surgeon are to be of any avail, it is necessary that the symptoms of these disorders be recognized early. The author describes briefly the three general groups into which they may be divided and cites cases of his for illustration. The first group is characterized by hyper- and hyposecretion of the gland respectively, taking the form of acromegaly and dystrophic adiposogenitalism; the third type may be seen alone or in combination with one of the other two. The pituitary body is the source of the other two types. In the first group the symptoms are the question of pressure upon adjacent structures of the intracranial pressure. In this latter group, however, there is no demonstration of metabolic disturbances; the author lays emphasis on the brain as the seat and diagnosis. There are also no infrequent psychical disturbances, ranging from somnolence and listlessness to well defined insanity. The most important of this group of symptoms, however, are those which result from injury to the optic tracts, causing bilateral temporal hemianopsia. The importance of the X-ray examination in diagnosis must not be lost sight of.

Fraser: An Approach to the Hypophysis Through the Anterior Cranial Fossa. *Ann. Surg.* Phila. 9, 3, 4, 45. By Surg. Gyner & Ober.

While this is in the majority of instances the hypophysis has been approached extracranially by the transphenoidal route, the author feels that in the future the intracranial method through the anterior cranial fossa will be the procedure of choice as by this latter route the venous approach is safer and the danger of infection lessened. The method which he so wisely makes the exposure of the pituitary body as devoid of serious difficulties as that of any other basal structure. The operation consists essentially in the reflection of an osteoplastic flap from the right frontal region in the removal of the supra-orbital ridge as suggested by Al. Arlt.

The portion of the roof of the orbit later to be reflected and is rejoining the part remaining of the roof of the orbit down to the optic foramen. With suitable retractors the orbital contents are displaced downward and outwards, and the frontal lobe elevated until a view is obtained of the optic nerve. It then makes short incision in the dura and thus lays bare the cavity of the sella turcica. The remainder of the operation depends upon the character of the lesion to be dealt with.

As an example, Fraser cites the following case in which he found and evacuated a cyst of the hy-

pophysis. The patient, a young man, fifty-three, had been a normal child at the age of fourteen, when he was struck with a rock over the right temporal region. Two years later he grew perceptibly weaker, his weight began constantly to increase and he was gradually losing the sight of his right eye. When he first came under the author's observation in July, 1910, his appearance was that of a thick-set boy of fifteen or sixteen, with very marked panniculus adiposus. The genitalia—in fact, in type—suggested a child of ten or twelve. He suffered from severe headaches and the ocular disturbances had advanced to a state of complete right temporal hemianopsia. Aside from these marked glandular symptoms, the X-ray findings were very suggestive of pituitary trouble.

Under intratracheal anesthesia, Frazer carried out the operation as described above. As soon as the anterior fluid process was reached he made a transverse incision 1 centimeter long in the dura across from one anterior clinoid process to the other and about a centimeter below the base of the skull, and by displacing the orbital contents with a retractor there was seen between the optic tracts what afterward proved to be a cyst of the hypophysis.

Frazer strongly recommends the intracranial route in all cases, and feels that it is positively indicated in cases where the orifice of the sella is enlarged and where there is reason to believe the tumor extends beyond the confines of the sella and is encroaching upon the brain. He has used this method in the last few hypophyseal cases with eminent satisfaction.

NECK

Wenglowski: Neck Fistulas and Cysts (Cler. Hahnen and Cysten). *Arch. f. Klin. Chir.* 9, 3, 4, 174.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

On the basis of his studies on human embryos, which have been described in detail, Wenglowski turns against the universally accepted theory of the origin of lateral neck fistulas and cysts from the second gill, left and pharyngeal pouch. As the main proof of this theory stands the course of the fistula under the hyoglossopharyngeus. But in most cases, a closer relation between the structures is lacking. In the first place, a series of further anatomical facts argue against the theory. The fistulas are usually so situated in relation to the stylopharyngeus which goes to make up the body of the third gill arch that they are below the muscle and usually open to the exterior on its posterior margin. The fistula would then belong to the third, and not to the second gill slit. In the second place, the explanation of the fact that many fistulas are covered with pavement epithelium offers many difficulties. The pavement epithelium is supposed to belong to the pharyngeal pouch and the flat epithelium to the gill cleft. There is, however, externally incomplete fistulas with pavement epithelium and internal

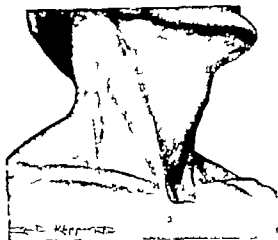


Fig. (M. Kenna)

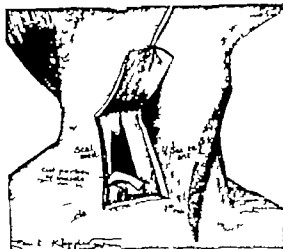


Fig. (M. Kenna)

fatulous tracts with flat epithelium. There is little likelihood that, for example, the arch of the pharyngeal pouch should reach down to the incisura sterni, while the gill arch, between which the pouch is situated should retain its position unchanged. In the third place the inner opening of the fistula usually lies behind the pharyngeal arch, or in the lower posterior corner of the mandibular, and hence in the domain of the third, and not of the second pharyngeal pouch. In the fourth place the direction of the course of the fistula and their position with relation to the external carotid does not correspond to an origin from the second pharyngeal pouch and gill cleft.

The author now proposes the theory that the lateral neck fistulas and cysts arise in the Thymus-anlage. The thymus arises from the third pharyngeal pouch in the form of a long canal which runs diagonally from the lateral wall of the pharynx to the sternum, here it develops the actual thymus body. The course and the anatomical structure of this canal correspond exactly to that has been found in the cases of neck fistulas and cysts. Aside from this course in certain cases a second embryonal tube comes into consideration which corresponds to the lateral thyroid gland anlage. The internal opening of fistulas of this latter origin is characterized by its position lateral to the laryngeal opening.

WARM.

Dowd Hygroma Cysticum Coll. Its Structure and Etiology. *7 Am. Surg. Ass. 9 L. May*
By Surg. Gynec. & Obst.

Scattered references to hygromas of the neck are found in surgical and pathological literature, but the cases are so uncommon that few definite descriptions have been recorded. A tabulated description of ninety-one cases of hygroma in the neck, thirty-five in the axilla and eleven in the parts of the body is

given many of the descriptions are incomplete. The term should be applied to cystic tumors which are lined with endothelium and which have marked individual power of growth. They are distinct from branchial cysts, thyroglossal cysts, tumors of the carotid body and lymphosarcoma. The demarcation from lymphangoma need not be absolutely definite.

The author described three cases of undoubted hygroma of the neck and a fourth case which was believed to be hygroma but in which inflammation had obliterated the fine structure of the cyst wall. All the cysts had been present from birth but had shown sudden and excessive power of growth. In one instance the cyst had extended into the mediastinum, in another into the pectoral region. One cyst had recurred very rapidly after removal of all visible parts. Silver-stained sections of the endothelium were shown also photographs of the patients and microphotographs of the cyst walls.

These growths are believed to be due to growth of embryonic sequestrations of lymphatic tissue.

M. Kenna A Report on Two Cases of Cervical Rib and an Operative Measure to Prevent Recurrence of Symptoms. *Surg. Gynec. & Obst.* 9 2, xvi, 323.
By Surg. Gynec. & Obst.

A review of the literature on neuritis of the upper extremities convinces one of the fact that until recently many cases of supernumerary or cervical rib passed unrecognized.

For a number of centuries anatomists have recognized extra cervical ribs, but this anomalous condition was not associated with the clinical phase which we now know these ribs produce.

The author believes the complete and permanent success of the operation for the removal of a cervical rib depends principally upon two points in technique: (1) An incision that gives easy access to the

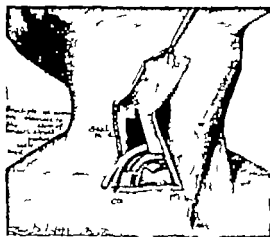


Fig. 3 (McKenna)

rib so that it may be removed entirely with minimum amount of trauma to the brachial plexus and subclavian vessels () the proper protection of the plexus and vessels from the upper surface of the first dorsal rib which has been denuded of its periosteum by the removal of the osseous attachment of the distal end of the offending cervical rib.

In the author's plan of operation, an incision is made from a point midway between the origin and insertion of the sterno-clasto-mastoid muscle and along its posterior border in a straight line to the lower border of the clavicle. A second incision is made parallel to the first, and two inches posteriorly from the anterior edge of the trapezius muscle, the corresponding point of the clavicle. These two incisions are now connected by a third incision, carried over the clavicle.

McKenna employs a portion of the scalenus medius muscle to cover the upper surface of the denuded first rib thereby forming a cushion for the brachial plexus and subclavian vessels.

Henderson: Cervical Rib; Report of 31 Cases. *The Ann. Otolaryngol.* 1913, 23, 317.

By Burg, Gynec. & Obst.

The deformity is usually bilateral. Of thirty-one cases observed in the Mayo Clinic there were twenty-four bilateral. All the cases in this group in which there was undoubtedly elongation of the costal process on each side of the seventh cervical vertebra beyond the tip of the transverse process of the first dorsal vertebra were classified as bilateral. Nine of the twenty-four were well developed bilateral cervical ribs, ten were rudimentary bilateral cervical ribs and three had a well developed rib on the right side with an accompanying rudimentary rib on the left. Two cases had a well developed cervical rib on the left side with an accompanying rudimentary one on the right. None of the males presented well developed bilateral cervical ribs, while

of the ten presenting bilateral rudimentary ribs six were males. There were five patients with well developed left cervical ribs, the right being absent, whereas there was only one developed on the right side alone. Of the nine well developed bilateral cervical ribs only two caused subjective symptoms and but one was operated on. In this case the left rib which was the larger was removed. The entire nine objectively presented tumors of varying sizes in the supraclavicular fossa. Of the ten bilateral rudimentary ribs three patients had subjective symptoms in none of these patients the rib was removed. For some reason unexplained cervical ribs are more common in women—twenty-two females and nine males in this group. In literature on the subject the percentage is usually rated as 7 per cent of females and 30 per cent of males.

Of the thirty-one cases there were eighteen who gave no subjective symptoms. Of these eighteen there were seven who displayed fullness in the supraclavicular fossa. Eleven no fullness was detected on routine physical examination. These eleven are subjected to X-ray examination of the chest for some other reason and the cervical ribs discovered incidentally. Six cases gave symptoms subjectively and objectively but were not operated on. Seven cases are operated on (five females and two males). Excision was made in six cases and an alcohol injection and cauterization to the neck in one neurotic man. All were completely relieved except two neurotic women and these are greatly relieved and satisfied with the result. Various theories are advanced to account for the fact that some individuals with cervical ribs have no symptoms, whereas others have this regardless of the size of the ribs. Jones accounts for it from an anatomical point of view by saying that an individual might have the normal number of ribs but the nerve roots make their point of exit little low and the first dorsal rib little high. The result would be pressure on the nerves and a brachial neuritis. Various degrees of this condition might be present. In certain cases the cervical ribs do not give symptoms and here again the nerve roots may make their exit high and so escape pressure. If their exit be low or normal, pain will ensue.

The author takes up the symptomatology and reports the thirty-one cases in detail. The conclusions are as follows:

1. Cervical ribs are congenital deformities rarely causing symptoms until adolescence or later.
2. The deformity is usually bilateral (twenty-four out of thirty-one cases) and is more common in women than in men (twenty-two females and nine males).
3. The size of the cervical rib is not the index to the symptoms.
4. It is estimated that only 10 per cent of cervical ribs cause symptoms. Out of the thirty-one cases in this report, eighteen gave no symptoms.
5. Brachial neuritis may be caused by cervical ribs. This neuritis may be caused by a lack of

harmony (embryologically) between the first dorsal rib and the site of exit of the roots of the nerves. The roots of the nerves may have their exit low and be subjected to pressure by a normal first dorsal rib or they may have a normal position and the first rib be high. We have had one case of brachial neuritis associated with tuberculous glands of the neck when during the course of the removal of the glands the first rib was seen to be high and to impinge the nerves. It was removed with complete relief from symptoms.

6. The theory of the difference in the site of exit of the nerve roots may explain the lack of symptoms in certain patients having all developed cervical ribs whereas other patients with smaller cervical ribs give pronounced symptoms.

Crowther: Aberrant Gopher of the Submaxillary Space (*Sur un cas de gopher aberrant de la loge sous-maxillaire*). *Riformes med.* 9, 3, 1917, 32.
By Journal de Chirurgie

The submaxillary space is rarely the site of tumors of thyroidal nature. Only nine cases appear in the literature. Those of Eiselsberg, Payre and Martina, who have two cases each, Socin, Lenzl, Reich, Heynler, Feldmann, each of whom have reported no case. The author reports tenth case under the following conditions: The patient was a woman 45 years of age. At the age of 33, following an attack of angina, she stated that a circumscribed tumefaction appeared in the right submaxillary space. At that time the tumor was round, mobile, and the size of a small nut. During the last three years it attained the size of a mandarin. It lay in the horizontal ramus of the maxillary bone and reached to its angle. In front it reached the median line of the neck, and below it extended to the hyoid bone. The skin which covered it was freely movable. The tumor was non-painful, elastic, and of cartilaginous hardness to its posterior pole. It was mobile and attached only at the borders of the submaxillary space. It was not evident on the floor of the mouth, but by combined palpation one could feel it in this place. The left side of the space and the rest of the neck was normal. The right lobe and the isthmus of the thyroid gland were palpable and slightly enlarged. A diagnosis of mixed tumor of the maxillary gland was made and the patient operated. On opening the space this gland was found to be normal and lying below and behind the tumor. The latter was found to be enveloped in a very vascular capsule and to be covered anteriorly and above by the great hypoglossus. It was easily enucleated since only a vascular pedicle attached it to the surrounding tissue.

This tumor was of a brownish-red color with smooth surface covered by several deep furrows. On its posterior aspect a yellowish white nodule of cartilaginous consistency was present. The cut surface showed a number of cysts of various size. The hardest part of the tumor seemed to be composed of calcified fibrous tissue. Histologically

areas of normal thyroid structure with cavities lined with regular cuboidal epithelium filled with colloidal substance were present. At other points tissue like that of cystic goiter was present.

Clinically the tumor was very difficult to diagnose. In one case only that of Lenzl could a diagnosis be made before operation, but in this case the tumor was only secondarily in the submaxillary space. It occupied the greater part of the median subhyoid region and accompanied a tumor at the base of the tongue.

In the author's case there was not a trace of extension of the thyroid from its normal locality. In cases of this variety and they are numerous it is not uncommon to see myxedema appear after removal.

AMEVILLE.

Wilson: The Pathology of the Thyroid Gland in Exophthalmic Goiter *T. Am. Physicians,* 9, 3, 1917.
By Surg. Gynec. & Obst.

Wilson, continuing his previously reported studies on the thyroid, has recently reviewed the pathology of the thyroid from 308 patients operated on in the Mayo Clinic for conditions ordinarily diagnosed exophthalmic goiter from January, 1905 to January, 1913, and also as controls of the thyroids from 385 patients operated on in the same clinic for conditions ordinarily diagnosed simple goiter during the year 1910. Besides studying the gross specimens, he has made a detailed analysis of the histology of the glands in fixed tissues and tabulated and summarized the results of his study to determine the relationship of the pathology of the thyroid to the clinical condition of the patient. His conclusions are as follows:

A detailed pathologic study of fixed-tissue preparations from 308 thyroids, removed from patients whose condition would ordinarily have been diagnosed exophthalmic goiter, showed that 70 per cent of the thyroids contained large areas of marked primary hypertrophy and hyperplasia. A parallel clinical study has shown that for a period of three years all cases with true exophthalmic goiter and from whom gland tissue was removed, fall into this list.

In the above series of 308 so-called "exophthalmic goiters" plus 385 so-called "simple goiters" or total of 793 thyroids, but four instances of marked primary hypertrophy and hyperplasia of the parenchyma have been noted in cases which did not show clinical symptoms of true exophthalmic goiter. Three of these four patients were children.

3. Twenty-one per cent of the 308 glands studied were either regenerations or adenomata. Clinically, while all of these were markedly toxic, all were chronic and none of them would now be grouped clinically as true exophthalmic goiter.

4. By assuming that the symptoms of true exophthalmic goiter are the result of an excretion from the thyroid gland and by attempting to determine the amount of such excretion from the pathologic data, one is able to estimate in a large series of cases

the clinical stage of the disease with about 80 per cent of accuracy and the clinical severity of the disease with about 75 per cent of accuracy.

It would therefore appear that the relationship of primary hypertrophy and hyperplasia of the parenchyma of the thyroid gland to true exophthalmic goiter is as direct and constant as is primary inflammation of the kidney to the symptoms of true Bright's disease.

Jacobson: The Thyrogenic Origin of Basedow Disease. *Ann Surg Phila.* 9, 3, 11, 31.

By Surg. Gyrec & Obel.

A review of the literature is presented contra to the theories of hyperthyroidism and dysthyroidism as constitutional factors in Basedow disease based on experimental and clinical observations.

Minne and Lenhart have come to the conclusion that the development of the gland is only part of general disease and is therefore only symptomatic and that its enlargement is compensatory depending on functional insufficiency. Carlson is lined to regard the thyroid structural changes in Basedow disease as an evidence of altered secretion rather than increased secretion. Abuse regarding the condition as dysthyroidism as the section of transected junctions of Basedow goiters last month produced

symptoms of the disease. He found that intravenous injection of potassium iodide in dogs produced a similar reaction. Bleiber believes that the thyroid gland plays an important rôle in relation to Basedow disease as implantation of thyroid gland intraperitoneally caused typical Basedow symptoms. — Garr, Copelle and others suggested this work by reporting the clinical improvement in Basedow following thyrectomy. Baruch caused experimental Basedow's disease by injection of an emulsion of ordinary colloid or parenchymatous goiter. The author calls attention to the well-known artificial production of Basedow's disease by iodine or thyroid extract, extract indication in certain cases, and cites Von Nothhoff's interesting case. Viewed from pathological standpoint every case of Basedow's disease is accompanied by enlargement of the thyroid gland. From the microscopic anatomic viewpoint, Kocher, Wilson and McCarthy and others have described typical histological pictures which are characteristic of definite stages of the disease. The appearance of Basedow symptoms presence of tumors inflammation of the thyroid speak strongly for the thyrogenic origin of the disease as do the results of treatment of the disease by surgical interference where there is a percentage of cure varying from 65 to 75 per cent. V. C. D. m.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Gossow: A Case of Hypertrophy of the Mammary Glands. (*Eine Fall von Hypertrophie der Brustdrüsen.*) *Gynäk. Rundschau*, 9, 11, 3.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Göttingen.

This anomaly of the breast is hardly mentioned in the text books. It is usually divided into two groups: (1) the permanent hypertrophy appearing with puberty; (2) the periodic hypertrophy which occurs during pregnancy and disappears during the first months after labor. The author cites a case.

The patient, 5 years old, had extreme hypertrophy of the breasts, especially the left one which was hung down to the navel. Circumference of the left breast in the middle was 35 cm. length from the fourth rib to the apex was 26 cm. Circumference of the right breast in the middle was 46 cm. length 36 cm. The breasts were very much enlarged at the beginning of the first menstruation and had not increased in size during the last ten years or during the pregnancy. Milk was secreted in small amounts. The breasts never interfered with daily work. She refused every treatment. R. Carver.

Deaver: Review of 834 Operations on the Mammary Gland. *J. Am. M. Assn.*, 9, 12, 795.

By Surg. Gyrec & Obel.

Deaver discusses the problem of mammary tumors, especially from the standpoint of prognosis,

bearing his opinions on statistical study of 834 operations on the breast. The author draws a parallel between the reduction of the primary operation mortality from 5 per cent to 1 per cent with the introduction of asepsis and antiseptics, and the reduction of the percentage of local recurrences from 65 to 5 per cent to 6 per cent with the general adoption of the Hagedorn principles of extensive dissection. Notwithstanding this, he sounds pessimistic not in the modern operative results, and firmly establishes this on the ground of late operative interference. Of the last 300 operative cases of cancer of the breast admitted to the wards of the German Hospital 3 had extensive ulceration and metastasis and the after results confirm the observations of others that these conditions bespeak the hopelessness of surgical cure. The average length of time the disease had existed, as estimated from the time of appearance of the first signs of trouble with the breast, was thirty months. In the cases in which the patients were well three or more years after radical treatment, sixteen months had elapsed on the average before operation.

Alterations in the normal fibro-epithelial relationship of bacterial, traumatic, involutionary or other cause, is almost invariably the precursor of malignancy and it is only at this stage that the success of an operation is assured for with the intervention of malignancy in no case can the limitations of the disease be foretold. As regards diagnosis, the author

says: When a positive diagnosis of mammary carcinoma can be made, the hope of operative cure is often in vain, for the classical signs are usually unmistakable evidence of extensive metastasis. A table of the physical signs in this series follows, and the possibility of cure based on these findings is indicated in a table taken from Greenough's studies. Of the author's patients well three or more years after operation, only 3 per cent had had retraction of the nipple and 8 per cent attachment of the tumor to the skin, but in no instance was the tumor attached to the pectoral fascia. Of 59 cases dying of early recurrence, 90.9 per cent had palpable axillary lymph node involvement. Of 6 cases living after the three-year limit, 5 per cent had palpable lymph nodes in the axilla.

The initial symptom in 78 per cent of the malignant cases and in 86 per cent of the benign cases was a lump causing as a rule no discomfort, and usually discovered accidentally. Pain was frequently complained of in the late stages of the disease but occurred in only 9 per cent of the cases as the initial symptom. The location of the various types of tumors is graphically shown, with the majority involving the upper-outer quadrant. Axillary lymph nodes palpably enlarged in the presence of a mammary growth are not absolute evidences of metastasis. This condition complicated 45 per cent of the benign cases in which microscopic study showed the absence of malignancy both in the tumor and in the glands. The microscope proved, furthermore, the absence of metastases in 65 per cent of the 37 per cent of malignant cases in which axillary enlargement was noted on palpation, although in 6 per cent of the cases in which no mention is made of involved axillary nodes, metastases were found microscopically. The author advises complete removal of the pectoral muscles and fascia, together with the axillary tissues, and considers in this connection the various routes of carcinomatous extension from the breast. He advocates removal of those digitations of the serratus magnus muscle arising from the fifth and sixth ribs when the tumor occupies the lower outer quadrant of the breast. The primary operative mortality in the series was .056 per cent. Endocarditis fatally complicated simple excision of a small benign tumor; the remaining two fatal cases died of anemia and pneumonia, respectively, after the radical operation for carcinoma. The end results in 9 cases were as follows: Of the patients with fibro-epithelial tumors, 44 have been traced, and of these 41 have remained well for an average period of six years; patients have had operations for similar tumors in the opposite breast, and one case diagnosed as fibroadenoma both clinically and microscopically had early malignant degeneration of the breast and died of recurrence after radical operation. Sixteen out of 75 cases of carcinoma, or 21.3 per cent, have passed the three-year limit and are free of recurrence for an average of 7 years; 37 died of recurrence and 4 from causes other than cancer; 6 others have re-

currence at the present time, while the remaining patients are apparently well, though sufficient time has not elapsed to make this certain. The author concludes that approximately one patient in five is permanently relieved of the disease by radical excision. His attitude is one of desire for wider excision than the original Halsted procedure, and he expresses the belief that markedly improved results of operative treatment can alone restore waning confidence in the surgery of mammary cancer. This desideratum can be attained, he states, when our efforts are directed to an educational campaign that will result in bringing the patients to operation with the disease localized to the primary focus, rather than in the direction of elaboration and extension of the operative procedure. His concluding words are as follows: When popular opinion demands immediate operation on the discovery of a lump in the breast when physicians are taught to think of breast tumors in terms of operability and when misguided humanitarianism no longer prompts the surgeon to attempt injudicious operations, the present lack of faith in the surgery of this disease will give way to healthy optimism.

Molinsus: Clidoplastie Operation Using the Spina Scapulae (Clidoplastik an der Spina scapulae). *Deutsche Zeitschrift für Chir.* 9, 1, 1908.
By Zentralblatt für Chir. 9, 1, Grenzgeb.

After a short introduction, in which the operating procedures up to the present are mentioned, the author describes a new method for the replacing of a resected clavicle from the spina scapulae, which was used, with good functional results, in two cases. In both cases there was a tumor in the peripheral portion of the clavicle.

Method of operation. An epaulett-shaped incision is made beginning about hand-breadth away from the spinal column, over the spina scapulae, and extending around the shoulder and below the clavicle, up to the sternum. The clavicle is then freed and resected after severing the muscle insertions. This is followed by a freeing of the M. supra- and infraspinatus, and chiseling off of the spine, which is turned about its acromial end and fastened to the stump of the clavicle by two wire stitches.

The only difficulty presented in either case by the operation was the freeing of the clavicle since in both cases the tumor had surrounded the large vessels.
VON TARNOWSKA.

Karajannopoulos: Epithelial Tumors of the Clavicle (Tumeurs épithéliales de la clavicle). *Bull. Ass. franç. pour l'étude du cancer* 913, 90.
By Journal de Chirurgie.

Karajannopoulos reports a case of an epithelioma of the clavicle probably secondary to one of the digestive tract. The case was in the service of Delbet. There was no autopsy.

The case was that of a woman 4 years old, who had suffered for one year with a severe pain in the shoulder which was described as rheumatic. On

examination, a round hard tumor was found at the middle third of the right clavicle and two similar tumors at the inner third of this bone. These tumors were painful to touch and were apparently the cause of the spontaneous pain in the shoulder.

There had been several attacks of severe burning sensations and pain in the epigastrium with vomiting. The vomitus was foamy and not discolored and there was no hematemesis or tarry stools. There was a diarrhoea.

For two months there were symptoms of pressure on the right brachial plexus, the patient being unable to use the right hand or move the arm across the body. The general health of the patient was affected and she was very emaciated.

Operation. Total extirpation of the right clavicle and the tumor was accomplished with difficulty on account of the tumor's being adherent to the internal jugular subclavicular and brachiocephalic veins. Normal recovery.

The outer third of the bone was normal. The middle third of the bone was invaded with the neoplasm except on its inferior surface. The inner third was completely destroyed by the tumor.

The neoplasm was firm homogeneous, gray with brown mottlings. Histologically it was a branching epithelioma in parts of which the cells were arranged in glands and in other parts there was a diffuse infiltration of the stroma with cancer cells. The cuboid or low cylindrical cells did not stain with mucicarmine. This appeared to be cancer secondary to a gastric carcinoma but the absence of an autopsy made it impossible to confirm this diagnosis.

Karalannopoulos reports five other cases of carcinoma of the clavicle. Two of these reported by Delbet, were secondary to malignant tumors of the liver. Two other cases secondary to carcinomas of the thyroid were reported by Legros and Guibe and Malpene. Finally Estoc and Massabian reported a case of primary cystic teratoma of the clavicle.

Delbet remarks that in the three cases of carcinoma of the clavicle which were secondary to abdominal cancers, two of the liver one probably of the stomach, the inner part of the right clavicle was always affected. This is probably not mere coincidence though our knowledge of the blood and lymphatic drainage of the clavicle is not sufficient to explain the phenomenon. JEAN CLAUDE.

Smith. The Congenital Absence of Ribs; Report of Case with Complete Absence of the Left Seventh and Eighth Ribs. *J. Am. Med. Ass.* 9, 3, 12, 805. By Surg. Gynec. & Obst.

Smith mentions nine cases in the literature showing complete absence of one or more ribs. Few of these cases were subjected to an X-ray or post mortem examination so it is possible that non-palpable rudiments of ribs may have been present in some of them. He reports the following case. Female died the eighth day. A post mortem showed the cause of death to be pneumonia. The

thorax was normal on the right side. On the left side the 1st, 2d and 3d ribs were normal, except that they seemed jammed together and compressed laterally. The 4th and 5th ribs were fused together. At the costochondral articulation this bony structure became broader and was attached to the sternum by two cartilaginous bands. About 1.5 cm. of the 6th rib attached anteriorly to the same length of cartilage was found in the thoracic vertebral column or sternum. The 7th and 8th ribs and their cartilages were entirely absent. The spinal column was defective on the left side at the level of the 6th and 7th ribs and was covered with smooth pleura at the place where these ribs should normally be attached. The 9th, 10th, 11th and 12th ribs were floating. The xiphoid process was bifid. A slight scoliosis, with convexity to the right, was present. In addition were found: A scapular scapula, patent ductus arteriosus, open foramen orale, syphilitic periarthritis in nearly all the viscera and double central canal of spinal cord in the thoracic region. L. G. DW.

Brown and Krause. The Uncertainty of the Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax; Report of a Fatal Case, with Autopsy. *J. Am. Med. Association*, 9, 3, May. By Surg. Gynec. & Obst.

The introduction of nitrogen into the pleural cavity although a simple procedure, is not synonymous with successful treatment by artificial pneumothorax. The authors emphasize the dangers and complications that accompany the treatment and report two fatal cases, with autopsy findings in one.

Pleuritic effusion is the most frequent complication. In about 50 per cent of cases it is demonstrable. Some believe that tubercle bacilli are always found in the effusion but Brown has demonstrated them in two cases only. The authors believe that the chilling of the pleura following collapse of the lung may have something to do with the formation of an effusion. A marked effusion increases the difficulty of collapse therapy. It increases intrapleural tension, glues the surfaces of the pleura together and the lung expands and resists further efforts at collapse.

Empyema may supervene upon an effusion. The authors have had two instances of this. In one case each time pus was withdrawn pus was forced along the track of the needle by the cough and formed what appeared like cold abscesses. Tubercle bacilli were found in this purulent effusion.

Subcutaneous emphysema may cause much discomfort. A patient with violent cough may force the gas into the subcutaneous or mediastinal tissues, outside the parietal pleura, or into the deep tissues of the neck.

Pleuritic adhesions are frequent. The degree of negative pressure that is registered when the needle is first inserted into the pleural cavity indicates in general way the extent of the adhesions but tells nothing of their tenacity. The negative pressure is

due to the elastic recoil of the lung and proportionately as it is exerted upon adhesions it is reduced to that part of the pleural cavity that is free.

On account of the adhesions the number of patients suitable for collapse therapy is small. Of twenty-two patients, Brown could produce no collapse in eight, a partial collapse in six, and a complete collapse in eight. Partial collapse may be productive of good results.

Dyspnea following injection may be due either to quick collapse of the lung or the introduction of too much gas. Withdrawal of the gas may be necessary in some cases.

Pain in the chest from the presence of loosening of adhesions may be very severe and require morphine.

Pleural shock and gas embolism may threaten life. In pleural shock the patient grows pale and faint, vomits and may lose consciousness. It occurs as the needle passes through the pleura and can be avoided by careful cannulization. Gas embolism practically never occurs when the injection is made under manometric control.

Disease in the non-collapsed lung may advance and it should be closely watched and the advantage and disadvantage of continuing the compression weighed.

The deaths among Brown's cases were due in part to spontaneous pneumothorax of the partially collapsed lung.

In one, a woman, aged 40, had bilateral advancing tuberculosis. Collapse of the right lung held the process in abeyance for a while but in short time the process advanced in the left lung and gas injections were discontinued. Two months later the patient felt sharp pain in the right lung and became dyspneic and cyanotic. A needle was introduced and pressure reduced from +0.1 to -3 mm. But it quickly rose again and although the process was repeated several times it produced no permanent effect upon the intrapleural tension. The patient died ten days later.

The other case was a woman, aged 36 who from March 9 had slow but steadily progressing trouble. On admission to hospital in September, 1909 she had extensive involvement on right and compensatory fibroid changes in the left. In March 1910 collapse therapy was begun and kept up until April, 1910. It resulted in a reduced cough and expectoration and lessened temperature which in December 1910 reached normal. But the temperature later rose and the weight steadily declined. A change of environment was ordered. She then presented signs of partial pneumothorax with hypercathartic succussion at apex and base. On the left few rales were present. On June 6th, 50 cc. nitrogen were injected and pressure left at +20. At intervals thereafter 50 to 200 cc. nitrogen were injected and pressure left at +8 to +20. On January 6, 50 cc. were injected (pressure +5) and that night patient complained of sharp pains in right lung and wheezing. Examination showed snoring rhonchus on the whole side with maximum

tensity in fourth L.S. Amphoric breathing replaced the former distant breathing. Later 200 cc. of pus were aspirated which contained large numbers of tubercle bacilli. The patient died February 3.

At autopsy it was found that the right lung was thoroughly collapsed and lay in the vertebral gutter. The thoracic cavity contained 500 cc. of thick, yellowish fluid. Thick fingerlike bands ran from the collapsed lung to the chest wall in the upper part of the thoracic cavity. On removal, the lung appeared as a shrunken tough, leathery piece of tissue, covered with an enormously thickened pleura. Lobe distinctions were lost. What was probably the upper lobe was now a cavity. Two slitlike holes communicated with the bottom of the cavity and probably were the points where the pleura was ruptured intra vitam. Section of the lung showed compact tissue of mottled reddish black appearance. Tubercles were a merozo, some undergoing organization and many almost completely healed. Macroscopic examination of part of the lung showed no gross tuberculous microscopically showed almost wholly granulation tissue. There were many microscopic tubercles and much pigment.

The left or uncollapsed lung was voluminous and showed diffuse tuberculous process which differed in age in different parts of the lung, the oldest spots being in the immediate neighborhood of the interlobar fissure. The lung was remarkably free from extraneous pigment.

TRACHEA AND LUNGS

Wolff Operation for Pulmonary Embolism after Trendelenburg (Operation der Lungenarterienembolie nach Trendelenburg). *Monatsschr. med. W. d. Naturg.* 9, 3, 15, 78.

By Zentralbl. f. d. ges. Hyg. u. Geburtsh. u. d. Grenzgeb.

The patient could not be saved, as the heart beat had ceased even before the embolus could be removed. Cardiac massage, artificial respiration, etc. failed. In most of these cases the diagnosis is very difficult. The question of interference will be even more difficult as even serious cases of embolus recover when treated conservatively. Rehn considers it safer to compress the vena cava manually when opening the pulmonary artery than to use elastic constriction, suggested by Trendelenburg because by the latter method cardiac dilatation is more promptly occur. In all cases developing marked cardiac dilatation after this procedure the heart will have to be exposed by section of the lower ribs. This will facilitate direct cardiac massage if required later.

Kunze.

HEART AND VASCULAR SYSTEM

Stewart Five Cases of Suture of the Heart. *J. Am. Surg. Ass.*, 9, 3, May. By Surg., Gynec. & Obst.

Case Symptom of cut anemia and hemipneumothorax. Slab of left ventricle, three-fourths of an inch long continuous silk suture.

Ligatio of the descending branch of the left coronary artery near its origin. Drainage of the pericardial and pleural cavities. Pyopericardium and pyothorax. Recovery. Death five years later from pulmonary tuberculosis. At autopsy the wall of the left ventricle was the seat of interstitial myocarditis, and in one place near the apex greatly thinned.

Case 2. Symptoms of acute anemia and hemopneumothorax. Stab wound of the left ventricle, half inch long. Continuous silk suture. Suture of the pericardium, drainage of the pleural cavity. Pyothorax. Recovery. Patient still well four years and three months after injury.

Case 3. Symptoms of compression of the heart. Pleura not injured. Stab wound of right auricle, one fourth inch long. Continuous catgut suture. Closure of pericardium. Pleura not opened during operation. Recovery without pyopericardium or pyothorax. Patient well after two years.

Case 4. Symptoms of acute anemia and hemopneumothorax. Stab wound of left ventricle, one inch long. Continuous catgut suture, closure of pericardium, drainage of pleural cavity. Death in forty-one hours. Topsy pyothorax, purulent pericarditis, acute infective myocarditis, acute vegetative endocarditis.

Case 5. Symptoms of acute anemia and hemopneumothorax. Stab wound of right ventricle, one half inch long. Continuous catgut suture. Closure of pericardium, drainage of pleural cavity. Death in one hour. Autopsy wound passed into right ventricle then through the septum into the left ventricle. Both ventricles were hypertrophied and the mitral valves were badly diseased.

Attention is called to the relatively slow pulse in the author's cases. In three it was 60 or below in one 63 and only 30 in the case with the highest count. The amount of external bleeding was never more than a trickle. This is accounted for partly by the valvular nature of the wounds. It is impossible with a single thrust of a narrow bladed knife to create a channel from the skin to the heart that will remain straight. So soon as the patient lies down the skin glides upwards an inch or more and the heart likewise ascends. If the pleural cavity is at the same time opened the heart is displaced farther by the resulting pneumothorax. In addition to the influence of this angulation of the tract in retarding the outward escape of blood, external hemorrhage is apt to be insignificant because the blood finds one, and usually two reservoirs, viz. the pericardial and pleural cavities, into which it may flow unhindered. On the other hand, bleeding intercostal or internal mammary artery unassociated with a wound of the pericardium or pleura may give rise to considerable external hemorrhage, because, aside from the cellular tissues there is no place in which the blood can accumulate.

There are no pathognomonic symptoms of wound of the heart even hemopericardium may be due to wound of the pericardium alone or to wound of one of the heart vessels at the base of

the heart. The diagnosis can be assured only by exploration which should be done in all cases in which there is the slightest suspicion of wound of the heart.

In five cases of wound of the pericardium, the author has explored the heart without finding a wound in that organ, although in three cases the pericardium was injured and in one the heart was contused. In two other cases in which wound of the heart was suspected the wound did not penetrate the thoracic wall.

Technique of operation. Iodine disinfection of the skin, excision of the cutaneous wound, digital exploration. Formation of chondroplastic flap the size and shape depending upon the situation of the external wound and the amount of room necessary to expose and suture the wound in the heart. So long as there is a pneumothorax it makes little difference whether this flap is reflected towards the right or the left. If the pleura is intact, however it should be preserved from injury. This is best done by turning the flap to the left, and pushing back the emphysematous pleura from the pericardium, as was done in Case 3. Enlargement of the pericardial opening in the axis of the heart, discovery of the wound in the heart by palpation. Inspection in the cases cited above was useless until the bleeding had been controlled temporarily by digital compression and the blood removed by sponging. With the finger on or in the cardiac wound a suture is inserted which is used as a tractor while the rest of the wound is closed. In two cases the wound was approximated with forceps during the suturing; this greatly facilitated the operation, but in one case the pulsations of the heart fell from 108 to 32 and the patient ceased breathing for a short time. A continuous suture is quicker than interrupted sutures, presents fewer knots on the surface of the heart, and less opportunity for leakage between the points of insertion. Catgut is the best material. In one case in which silk was used, abscess persisted until the silk was discharged. In three instances additional sutures were needed to control the bleeding, once because of spouting from the needle punctures (wound of right auricle) once to the large branch of the coronary which ran into the wound, and once to the descending branch of the left coronary near its origin where it had been accidentally wounded by the needle. This case of ligation of the left descending coronary artery is of considerable importance in view of the statements of some physiologists regarding the fatal effect of suspension of its function. The patient recovered and was apparently not inconvenienced by the obliteration of his coronary artery. At the autopsy however five years later, it was found that the wall of the left ventricle was the seat of interstitial myocarditis and in one place near the apex greatly thinned. It is recommended that all blood be removed from the pericardial and pleural cavities and that these cavities be closed without drainage. Drainage favors infection. If suppuration occurs later in either of

these cavities a drain can then be inserted. It is recommended also that the Verdring operation, or if the insufflation apparatus is not at hand that the thorax be closed immediately and the air withdrawn from the pleural cavity by aspiration. The only discernible objection to this course is the possibility that distention of or suction upon the lung might renew or increase the bleeding from the wound in the lung. The importance of a free pleural cavity, however, cannot be overestimated. The large volume of air in the pleural space is a great number of bacteria and these settle the pleura and give rise to infection. In recent case of exploratory thoracotomy for stab wound of the lung, the wound in the lung and the thoracic wall were closed, and as much air as possible aspirated from the pleural space. Recovery followed without empyema.

Harris: Temporary Arrest of the Heart Beat Following Incision of the Pericardium for Suppurative Pericarditis. *J. Surg. Phila.* 9 J. H. R. 367. By Surg. Gynec. & Obst.

Harris reports the case of a patient not only on account of the rarity of an operation for suppurative pericarditis but because the temporary arrest of the heart incision of the pericardium might have physiological significance vital to the development of the technique of cardiac surgery.

The condition occurred in this poorly nourished, anemic child aged years. The purulent pericarditis along with an empyema developed secondary to subperiosteal abscess of the femur. Symptoms pointing to pericardial effusion led to an aspiration of the pericardial sac. Three ounces of purulent fluid under considerable pressure were withdrawn. When flow ceased, immediate operation was decided upon. Ether-oxygen narcosis was used and mediastinum opened by resection of $\frac{3}{4}$ inches of fifth ribs. Pericardium was deeply placed and some difficulty was encountered in fixing it previous to making incision. Upon opening the pericardial sac, large quantity of pus was forcibly ejected. The heart deeply placed within the pericardial sac, lay absolutely motionless. It was not determined whether the heart was in systole or diastole. The duration of the cessation was not timed. When an attempt was made to introduce gauze drain into the pericardium, the heart began to beat, and within minutes the action became tumultuous. The child survived the operation several days.

The author concluded that it seemed logical to assume that there exists physiological association between the pericardium and myocardium, and that stimulation of the former causes a disturbance in the rhythmic activity of the heart. R. W. McNair.

Meyer: The Surgery of the Pulmonary Artery. *T. Am. Surg. Ass.* 9 J. May. By Surg. Gynec. & Obst.

The main trunk of the pulmonary artery is easily accessible within the pericardium after incision of the

latter and pulling the pulmonary artery plus ascending aorta forward by means of an elastic tube which was conducted through the transverse sinus of the pericardium. Five years ago Trendelenburg recommended the operative removal of pulmonary emboli. He resected the left second rib with the help of a double skin muscle flap formation and thus got sufficient access to the pericard and pulmonary artery. The elastic tube compressing both vessels is held by an assistant. The pulmonary artery is incised and the emboli removed with forceps. The vessel wound is then closed by sutures. According to personal communication (December 1922) Trendelenburg and his assistants have done the operation eleven times. No permanent recovery was seen so far but the results were encouraging. One patient of Krüger lived four days after the operation and then died of pleuro pneumonia.

The arteries cannot be compressed longer than forty five seconds. Lilien and Sievers of the Leipzig clinic have found that the compression of the two venae cavae is better borne evidently on account of avoiding the distention of the right heart. In doing this six or eight minutes are the operator disposal. The author hopes that the future will see a number of these patients saved by operation.

The second operation considered is the ligation of branches of the pulmonary arteries for bronchiectasis. It is recommended by Sauerbruch and Bruns two years ago. The pathology of the disease and technique of the operation are briefly gone over and the history of three patients given who were operated upon by Meyer in this way. All three recovered and are greatly improved so far. The interruption of the physiologic function of the lobe of the lung produces shrinkage connective tissue formation and adhesion between pulmonary and costal pleura. Multiple resection of ribs done at a second stage produces collapse of the lung later on.

At the present time the thorax has two patients under his care in whom it seems desirable to influence all three lobes of the right lung. A more central ligation of the pulmonary artery seems better for the purpose. Experimental work has been done in this direction. The main trunk of the left and right pulmonary artery can be ligated without harm to the animal. The left branch is nicely accessible within the pericard by reflecting part of the latter or right outside of the pericard according to anatomical conditions. Ligation of the right branch is more difficult. According to Meyer's observations, the best procedure is the exposure and ligation of the right pulmonary artery within the pericard between ascending aorta and superior vena cava. Another approach is the division of the right pulmonary artery through an incision outside of the vena cava superior. The experimental work on this latter approach has not yet been completed. The advisability of ligating the main branch or its divisions is discussed.

If it should be shown that pulmonary shrinkage

and collapse therapy of the lung do not cure or at least greatly improve the trouble pneumectomy will become the operation of choice since we have learned to close the bronchus airtight.

Sauerbruch The Influence of Artificial Paralysis of the Diaphragm upon Pulmonary Diseases; Phrenectomy (Die Bedeutung von Lungenkrankungen durch künstliche Lähmung des Zwerghells, Phrenektomie) *Mischel. med. Wochenschr.* 9, 3, 12, 63

By Zentralbl. f. d. ges. Chir. u. Gynäkol.

The author performed the extrapleural thoracoplasty operation for tuberculosis in fifty-eight cases with only two cases of post-operative pneumonia of the inferior lobe he describes these as aspiration pneumonias differing entirely from the views of Wilms. In neither of these cases did he do preliminary or simultaneous compression-operation on the inferior lobe of the lung. This fact and the belief that the thoracoplastic measures to be adopted must be extensive, despite the healthy con-

dition of the inferior lobe, led the author back to earlier studies, viz. the attempts to place the diaphragm in the position of its maximal expiratory movement by phrenectomy in order to produce a position of rest for the lung, with compression and connective tissue proliferation. Bardenheuer did this operation at the suggestion of Stürts in case of bronchiectasis. The recently published studies of Schepelmann concerning the artificial paralysis of the diaphragm induced the author to report his not yet completed experiments in five cases, earlier than he had intended. It is not difficult to locate the phrenic nerve by an incision 5 cm. in length, along the posterior border of the sternocleidomastoid muscle. The nerve is 3 mm. in thickness and is easily found lying on the scalenus anticus muscle. Consequently the author suggests doing the phrenectomy at the location of the preliminary compression of the inferior lobe of the lung. He also claims the operation to be applicable in cases of bilateral tuberculosis and in bronchiectases.

Pfeiffer.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Trapl An Inflammatory Desmoid of the Abdominal Wall (Zinkhry desmoides abdominis) *Cas. Med. Casl.* 9, 3, 14, 96

By Zentralbl. f. d. ges. Chir. u. Gynäkol.

During May 9, a subserous myoma was removed from the right side of the fundus uteri of a 35 years old pregnant patient. Recovery was normal, the wounds healing by first intention. The following September the patient was delivered spontaneously and there were no complications. Four weeks after labor the patient had fever and complained of pain in the lower part of the abdomen. Three days later she was admitted to the hospital. Temperature at that time was 38-39.5° C. There was smooth cicatrix about 5 cm. long in the cecal region as a result of the former laparotomy. A solid non-sensitive tumor was present extending from the left pelvic region over the median line, up to the scar this mass was connected with the abdominal wall. Vaginal examination revealed fluctuating mass connected with the uterus and which extended to and was part of the tumor of the anterior abdominal wall. The vaginal incision resulted in the discharge of serous fluid. After symptomatic treatment extending over a period of seven weeks, the fever abated. When laparotomy was done, the incision was made parallel to the left side of the tumor. This consisted of inflammatory tissue several centimeters in thickness growing from the deeper layers of the belly wall. The upper part was so intimately adherent to a loop of the small intestine that it was found impossible to separate the adhesions by the ordinary methods, hence partial

resection of a large part of the tumor was done. This disclosed a small abscess in the lower segment of the growth, near the wall of the bladder.

Drainage was established at the lower angle and the abdomen closed. Recovery was uneventful. Several silk ligatures were discharged through the drainage fistula. The microscopic diagnosis was inflammatory desmoid, chronic granuloma containing thin striae. The excised tumor belongs to a class of inflammatory neoplasms frequently following hernia operations as described by Schloffer, Halm, Baker, Ehler and others. They grow around infected ligatures.

Prusacowski.

Bonamy Five Fibromyomata of the Diaphragm Stimulating Hydatid Cysts of the Liver; Myomectomy; Cure of the Patient; Presentation of Specimen (Cinq fibromyomes du diaphragme stimulant un kyste hydatidique du foie; myomectomie; guérison de la malade; présentation du spécimen) *Paris chir.* 9, 3, 12, 1951.

By Journal de Chirurgie

A woman, 34 years old, without any personal or family history of interest and with no functional disorder complained of a mass which extended below the right costal margin and caused pain all over her right side up to the shoulder. The mass was globular fluctuating and raised the costal margin below which it extended. A diagnosis of hydatid cyst of the liver was made.

A laparotomy incision was made at the external border of the right rectus muscle. Bonamy found a bluish white mass which he punctured and found to be solid. On further investigation it was found to extend up under the border of the ribs and to be attached to the diaphragm by a pedicle which

penetrated a large gap in the diaphragmatic musculature. By his fingers and a Museux forceps the author was able to enucleate this tumor and four more hard tumors which were embedded in the diaphragm without injuring the diaphragmatic pleura which was exposed. Fear of injuring this caused him to leave small tumor the size of a nut. The removal of these tumors left large cavity limited above by the diaphragm and below by the liver which was drained and the abdominal incision closed. A normal recovery followed. The specimens examined by Philibert were pure fibromas the largest of which weighed 800 grams and the smallest 70 grams. J.-L. ROUX BRAGA.

Bernstein Etiology of Hernia (Zur Kasuistik der Hernien). *Arch. f. Klin. Chir.* 9, 1904.
By Zentralbl. f. d. ges. Chir. 31, 1. Gernsberg

Bernstein examined the entire post-mortem material of the Berliner Anatomischen Anstalt during the intersemester 1903-1904 and 1905 as regards the formation of hernia, and support for the theory of Koch, von Bergmann and Wakleyer that every hernia is predisposed to anatomically. The author found 5.8 per cent of 279 bodies to have a hernia or hernial bud. The frequency of hernia in man in proportion to woman is 14 to 1. The relationship of multiple hernia to the simple in man is 1/4 to 1 in woman 9 to 1. The theory that the pressure of the abdominal wall causes the hernia is probably overthrown to-day. The explanation that the pressure of the abdominal wall could be aided by poor anchorage and position of the abdominal content is not sufficient support for the production of hernia. Roser suggests that the hernial sac must be considered as primary. The entrance of the intestine follows secondarily. Linhard explains the formation of the hernial sac through bulging of the peritoneum. He says it is usually preperitoneal lipoma which is forced outward and pulls the peritoneum after it. The author argues against the theory of Linhard because in the 279 cases he found only six in which there was preperitoneal lipoma. From the striking frequency of multiple hernia and buds in the same individual (9.4 per cent of the multiple against 6.4 per cent of the simple hernia) he concludes that the origin of the hernia consists in an anatomical predisposition, which can be traced to processes in developmental history. Kosa.

Ochaner The Treatment of Hernia in Children. *J. Lancet* 9, 1, 1904, 27

By Surg. Gynec. & Obst.

This paper contains clinical observations on the treatment of hernia in a great number of children, covering a period of 7 years, as well as a study of the available literature.

Based upon these studies and clinical observations the following conclusions are offered:

The development of hernia in children is favored by (1) faulty development of the abdominal

wall (2) insufficient strength in the tissues involved in closing the umbilical, inguinal or femoral openings (3) abnormal intra-abdominal pressure (4) undischarged condition of the tunica vaginalis.

2. The causes (1) and (2) are frequently inherited.

3. The abnormal intra-abdominal pressure is due (a) to gaseous distention resulting from improper feeding (b) to the exertion necessary to evacuate the bladder on account of obstruction due to phimosis (c) to severe pressure necessary in defecation in case of constipation (d) to severe, long continued coughs (e) to vomiting (f) rarely to traumatism overexertion.

4. Approximately 95 per cent of all cases of hernia in children will heal spontaneously if the abnormal intra-abdominal pressure is relieved and the hernial sac is kept empty.

5. This can be accomplished by means of trusses, or much more rapidly in inguinal and femoral hernia by placing the child in bed with the foot of the bed elevated each night for several months from 6 P. M. to 8 A. M.

6. Children with tendency to the formation of hernia should be guarded against developing coughs.

7. Their diet should be given at regular times and chosen with view to avoiding gaseous distention.

8. Constipation should be entirely prevented.

9. In case of boys, phimosis should be relieved, if present, by operation.

Badly nourished and badly cared for children of the poor should be treated in hospitals by the above method.

Operation is indicated (1) in strangulated hernia (2) in irreducible hernia due to adhesions (3) in case the opening is unusually large in free hernia, especially if the condition is hereditary (4) in reducible hydrocele, (5) in cases with undescended testicle, unless they show a tendency toward spontaneous cure.

Except in classes (1) and (2) the operation should consist simply in carefully dissecting out the sac, or in certain cases of inguinal hernia the neck of the sac ligating it within the abdominal cavity cutting away the sac, and permitting the stump to retract within the abdominal cavity and closing the skin wound.

3. In class (1) the Ferguson-Andrews operation is indicated.

4. In class (2) the Bevan Ferguson-Andrews operation is indicated.

5. The recumbent position, with the foot of the bed elevated, is of very great importance in the after treatment of operative cases as well as in non-operative treatment of hernia in children.

6. In young children who will not remain in bed with the foot of the bed elevated this position can usually be maintained by applying rubber adhesive straps to both lower extremities and having these held in vertical position by means of weights and pulleys.

7. If the child cannot be kept in this position, well-fitting truss should be worn night and day until there has been no protrusion for at least six mo. At the same time the necessary precautions must be constantly taken to guard against abnormal intra-abdominal pressure from any cause.

8. Only 5 per cent of all cases of hernia in children require surgical treatment.

Haller: Chronic Inflammation of the Omentum in Relation to Chronic Appendicitis and Colitis (Des épiploites chroniques en rapport avec l'appendicite et la colite chroniques). *Paris: Sitenbell, 1909.*
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Whether first directed attention to chronic inflammation of the omentum in 1893. Largely on the basis of Walther's material, the author now gives a corrected presentation of this highly interesting and rare disease. Here belong only the omental inflammations as a sequel to appendicitis and colitis. The colitis may be primary but is usually a sequel of the appendicitis and especially again of the epiploitis. The mental adhesions in the pelvis in consequence of disease in the adnexa, the omental changes in old hernia etc. will not be considered. They are entirely different in the pathologic-anatomical sense from the changes here considered.

The mental inflammation following chronic appendicitis or chronic primary colitis are characterized by their extension far beyond the original inflammatory focus and their independence. The complaints which they call forth are determined by their independent inflammatory character further by the mechanical blindness of the internal functions. The two forms, which cannot be sharply separated are () free epiploides, () those with adhesions.

In the early stages of the inflammation the true chronic epiploitis is recognizable by the very color of the omentum. The inflammation occurs in spots or larger areas. In the further course characteristic nodules are formed of bright red color and considerable resistance, giving the omentum the appearance of granites ("granite spots"). With increasing sclerosis the omentum may take on leathery consistency. Fine strands passing free from one part of the omentum to the other may be formed, especially on the posterior aspect, and the so-called "retraction-knots" are formed which distort the omentum and may again be the seat of inflammatory changes. Finally after the inflammation has run its course shining white plates are seen ("mother of pearl spots"). Besides these changes you find smaller or larger hematoma, often quite numerous in the omentum. The changes are noted chiefly in the right side of the abdomen but often over the entire omentum. It may shrink to sausage-shaped tumor and distort the intestine without adhesions.

Adhesions may be added. Omental adhesions to the anterior abdominal wall or the pelvis are most frequent. Consequences: descent of the

transverse colon and at much adhesions of the colon in the ilio-colic region ("peritoneal band") constriction of the colon by ring-shaped omental bands spread over it ("precolic ring") but especially adhesions at the right angle of the colon whereby the colon is kinked. The well-known membranes over the caecum and the ascending colon are looked upon as remains of chronic appendicitis and colitis complicated with epiploitis.

In a series of 453 ppendectomies (Interval operations or primary chronic cases) there are 37 cases of true chronic epiploitis. Of these 9 were without, and 8 with adhesions. Simple adhesions, such as those of the organs of the pelvis, are not included. Wherever true epiploitis is present in the pelvis an old ppendicitis was always found. Clinically the cases are separated into those in which the symptoms cannot be differentiated from those of chronic appendicitis, those in which the phenomena of the epiploitis are in the foreground, and those in which in spite of an appendectomy all sorts of symptoms remain. 1 case of severe kinking violent symptoms and occlusion crises may supervene. The inflammatory foci in the omentum (even in the third group) may give exactly the picture of an attack of appendicitis. The symptoms are those of indigestion in manifold variety: gastric disturbances, constipation varying often with diarrhoea, unpleasant abdominal sensations, dragging sensations often sharply localized (umbilical region, lumbar and kidney regions), flatulence, general weakness, pallor etc. Sometimes the mental case may be palpated. In every abdominal operation it is necessary to examine the omentum systematically. In an appendixectomy one can usually pull the omentum through the usual small incision and convince oneself of the condition of the colon. If alterations are found, a large incision may be made. The operation indicated is resection of the diseased portion of omentum and loosening of pericolic membranes.

BURCKHARDT

GASTRO-INTESTINAL TRACT

Brown: The Etiology, Symptomatology, Diagnosis and Treatment of Acquired Displacement and Fixation of the Stomach and Intestines. *7 Ann. Am. Physiother. 9, 1 May.*
By Surg., Gynec. & Obst.

The author presents a series of observations on acquired fixation, displacement of stomach or intestine, some with definite local or referred symptoms, many which on account of their long duration and the vagueness of their symptoms had been regarded as cases of neurasthenia, psychasthenia, auto-intoxication or nervous indigestion, but which in reality were due to definite organic changes in the gastro-intestinal tract. In this series were 3 cases in which operative treatment was employed, 34 which have not been operated upon. In the former group, by the autopsy in vivo he has had at

hand means of fixing the relative value of the clinical symptoms and comparison between them and the anatomical conditions. Poised as it were between two opposing forces, inspiratory muscles and those of the abdominal wall and pelvic floor and fixed at but few points and loosely that the gastro-intestinal tract is singularly labile—singularly susceptible to change in position. In this series he has not included those cases in which pressure changes within the abdominal cavity to weakening of the supporting tissues, to pressure of new growth etc., but has confined his attention strictly to those due to the traction or constriction of adhesions.

In the vast majority of high-grade displacements or fixation of the large intestine, symptoms are met with explained only on the basis of a chronic toxemia, and certainly the anlage is there in the displaced kinked intestine deficient in tone and propulsive power.

Certain points of especial interest were brought out in the study of these cases—the marked degree of gastric or intestinal displacement possible (high or low) (or slight) local manifestations, but in almost all cases with some impairment of general health.

With even slight evidences of inflammatory condition in appendix, gall-bladder etc. the gastric picture presented was of the hypersthenic type, while in the case of adhesions with no inflammation even of low grade the asthenic type of stomach was more usual. In two of these latter cases they met with *hæmorrhagic* in the wide open pylorus with dilated duodenum, regarded by Codman as gastro-mesenteric ileus.

In certain cases of adhesions between gall-bladder or liver and lesser curvature of stomach we have the organic basis for the orthostatic type of hour-glass stomach with obstructive symptoms, especially marked in the upright and ameliorated in the prone position.

Constipation is present in a number of cases of chronic appendicitis, and if persistent without signs of tuberculois should make one suspect this as a cause.

Fluoroscopic was done in all cases, besides the X-ray photograph and the former gave, as nothing else can, a means of studying these fixations and displacements and the effect of change of position and the respiratory movements, and furnished the best criterion as to the probable success of non-operative or the necessity for surgical treatment.

Chronic changes in the pancreas were met with in certain of the toxic cases, and probably play considerable rôle in the production of digestive and nutritional disturbances. In this same group of cases peculiar regressive changes in omental and sigmoid fat were seen, sometimes associated with pain.

In all cases, in addition to the proper dietetic and medicinal treatment—posture, exercise, massage, etc., etc., should be tried, using repeated fluoroscopic examinations as the criterion of effort. It is surprising how much success will follow this treatment if

the adhesions are not too dense the kinking or constriction not too marked.

If non-operative treatment has proved unsuccessful, recourse to surgery is justifiable—appendectomy separation of adhesion drainage of the gall-bladder pyloroplasty gastro-enterostomy appendicostomy or colectomy as the case may be.

After all these operations, and in fact after all operations within the abdominal cavity however simple proper after-care is absolutely essential to prevent the formation of new adhesions and in the lack of this after-care the surgeons have been singularly negligent as a rule, and have sometimes left behind a condition no less, and often more serious than the condition for which they were operated. Such after-treatment consists of very frequent change of position during the early days after the operation, by moving the patient from side to side by alternately elevating the foot and the head of the bed and, as soon as the condition of the wound permits it massage of increasing depth to be kept up a considerable period of time.

In all cases with congenital tendency to splanchnoptosis, especially in children, one should try by exercise diet massage etc. to improve the tone of the abdominal muscles, to increase the abdominal fat and to enlarge the lower thoracic zone, in the hope of preventing attacks of high grade with its tendency to stasis low grades of peritonitis and appendicitis, and consequent secondary displacement, fixations, constrictions or kinks.

A consideration of these cases brings out certain general facts:

A large group of cases usually considered of functional nature have in reality true organic basis in a fixation or displacement of stomach or intestines. In many cases it is impossible to find any cause for the condition except a long lasting stasis of intestinal contents which seems under certain conditions to lead to chronic appendicitis, pericolicitis or perityphilitis with subsequent formation of adhesions. In other cases a careful analysis of the clinical history will bring out an acute attack, often in the far past and usually regarded as of trifling nature which in all probability was the beginning of the trouble, the first cause of the changes being in the gall-bladder or duodenum, pylorus, or appendix caecum, colon, sigmoid, as the case may be.

A chronic perididitis pericolicitis, inflammatory condition of the gall-bladder a superficial erosion or ulceration of the mucous membrane of pylorus or duodenum, or neoplasm may cause adhesions and associated fixation or displacement of stomach or intestines without definite local signs or symptoms in which a diagnosis is only possible by the use of all the diagnostic aids at our command, study of the temperature at rest and after exercise.

If the leucocytes, if the contents of the stomach after the test supper and the test breakfast, of the urine and feces—the former help us in fragmentary way it is true in determining whether the liver is insufficient in its protective mechanism

against poisons produced or found in the intestines, poisons which probably play a considerable rôle in the production of certain of the symptoms of the case, the latter especially for occult blood, undigested foodstuffs, and for quantitative estimation of the pancreatic ferments of the character and localization of pain or soreness (present, pain down the right leg or in the right hip being of especial interest in diagnosing chronic appendicitis and the use of the X-rays, both radiophotography and fluoroscopy being employed by us in all cases, the latter in our experience being of fundamental importance, as by its use we are able to study not only change in the position of stomach or intestines, but also the effect of deep abdominal inspirations and expirations and of the change from upright to prone position—in other words, fluoroscopy will tell us as much as anything else—except long series of radiographs—the effect upon the motor function of stomach or intestine of the fixation displacement. By the employment of all these means correct diagnosis can be made in the great majority of cases, if we may judge by the verification of the findings in our group of cases by the operative findings.

3. In certain of these conditions we have without doubt the organic basis for various vague functional disturbances of digestion or for conditions regarded as neurasthenia, psychasthenia or of condition of health in which the patient is neither sick nor well, but always below par. An organic digestive condition, even if of very low grade, may change person of even normal nervous habits into neurasthenic if it acts over a sufficiently long period of time and obviously upon susceptible nervous system the type so frequently met with in splachnoplethias, in which secondary fixations or displacements are so common, the effect will be greater and more permanent. It would seem, therefore that the diagnosis of neurasthenia, psychasthenia or chronic nervous indigestion is only justifiable after the physician, by the use of all possible diagnostic means, has been able to definitely eliminate the possibility of an underlying organic basis of which these acquired fixations or displacements of stomach and intestines play a considerable rôle.

It must not be forgotten in the study of these cases that function is more important than form, physiology than morphology and the assumption that change in position in the intestine from horizontal to vertical will materially increase the difficulty of propulsion is contrary to the fact that for years this has been taking place in certain portions of the intestinal tract with no apparent disturbance. It is lack of tone not displacement per se that is the cause of the trouble, although in the origin of this atonic condition, adhesions, displacement, kinking and constriction may all play a part, and it is only by careful quantitative and qualitative studies of ferments and complicated chemical substances that we may hope to finally reach the basis of the local and general disturbances met with in this group of cases.

Zaaijer. Successful Transpleural Resection of the Carcinoma of the Cardia (Erfolgreiche transpleurale Resektion eines Kardiocarcinoms). *Ned. Nieuw. Chir.* 1913, LXVIII, 4 p.

By Zeebrink, L. d. gen. Chir. u. l. Gecomp.

The author reports a case of carcinoma of the cardia which he operated successfully by transpleural method of his own. After he had determined by exploratory laparotomy the presence of a tumor of the cardia which reached to the hiatus of the oesophagus and was movable, hard, the size of a pigeon egg and had made fistula of the pyloric end after the method of Kader he undertook a few weeks later the actual resection in three stages in the following manner. In the first period under pressure narcosis he resected sub-peritoneally the 6th to the 8th ribs on the left side for a distance of from 4 to 4 cm. from the costal cartilage back and the angles of the ribs, through two incisions running parallel to the ribs. He closed the wounds by sutures. After the patient had sufficiently recovered from this step the radical operation followed after thirty days, again under pressure narcosis. He made a circular incision in the left hypochondrium from the mammillary line upward to the posterior axillary line and reaching above the angle of the scapula. He then opened the abdomen and the left pleural cavity. Introducing the left hand into the abdomen and the right into the chest cavity he determined the operability of the carcinoma, which extended to the diaphragm. Next he isolated the oesophagus during which the right pleura was torn into in one small place. A gauze strip was led around for traction with which the oesophagus was put in tension. The diaphragm as split in the middle up to the hiatus of the oesophagus and a circular incision of the diaphragm ring was made. After ligating the omentum minus and cutting through the left triangular ligament and the gastrosplenic ligament the stomach could easily be pulled out so far that it could be cut through between the tumor between two clamps by means of thermocautery. After suturing the abdominal lumen it was again replaced into the abdominal cavity while the tumor and which was closed with clamp was placed outward. Following this there was dissection of the oesophagus, partly by cutting and partly by blunt dissection, all the healthy part could be pulled up to the skin without stretching. After the incision in the diaphragm had been carefully closed in two layers and at the same time the tear in the right pleura closed, the left lung was inflated and the oesophagus fixed to the costal pleura 4 cm. above the tumor. The left chest cavity was hermetically closed and the abdominal wall was closed by suture. The tumor was finally removed by cutting with thermocautery between two clamps. The clamp which closed the oesophagus was allowed to remain in the bandage for three days to avoid an infection of the wound too early period.

As regards few details of the method of operation, the following can be added. The author

does not believe in primary union of the stomach and oesophagus. He expects to do this at a subsequent operation. So that the patient might partake of soft food through the mouth he united the oesophagus fistula with the stomach fistula by an apparatus. He considers the preceding extensive resection of the ribs as an important step in the actual removal of the tumor. He thereby obtains a collapse of the left side of the chest, whereby the operative field, which is otherwise very deep, can be more easily reached, and permits the subsequent resection of the tumor. He emphasises the fact that it is advisable not to remove the 11th even the 11th rib in the first operation, because after their removal the diaphragm will permit the lower part of the thorax to retract too much at times through displacement of the mediastinum. Severe disturbances of respiration follow which, however, can be overcome by administration of oxygen under pressure.

The author regards the thickening which the costal pleura undergoes an additional advantage of the preceding operation in the chest wall. The subsequent nourishment of the oesophagus follows much better from thickened than from thin normal pleura. The fear of Sauerbruch and Enderlein that the extensive isolation of the oesophagus results in harmful reduction of its nourishment the author does not agree with, as a result of animal experiments. NIXON

Friedenwald and Baetjer: The Value of X-ray Examinations in the Diagnosis of Ulcer of the Stomach and Duodenum. *J. Am. Med. Assoc.* 9.3. May. By Surg. Gynec. & Obst.

The diagnosis of ulcer of the stomach and duodenum is at times most difficult problem. Not infrequently important symptoms are absent and the cases then become so typical that any additional aid in diagnosis must be looked for with great satisfaction. The X-ray has presented us with an important additional means of diagnosis in the study of this affection. While the authors do not believe that this method is as yet sufficiently well developed to be relied upon alone, yet they are confident that it often offers most valuable assistance as an aid in diagnosis of quite as much practical value as any of the important symptoms of the disease and, taken in connection with the other signs is of the greatest diagnostic help.

They have selected from their eighty cases of peptic ulcers, in which X-ray examinations have been made, twenty for this report, including those only concerning which they could feel confident as to the correctness of the diagnosis. Of those, there are ten cases of duodenal and ten cases of gastric ulcer.

Three of these cases were operated on and the diagnosis was thus confirmed. Three others had been operated on, and the ulcers were revealed at the time of operation, but were not interfered with, while the remaining fourteen presented such typical symptoms of ulcer including the presence of blood

in the stools, that the correctness of the diagnosis in these ten remains undoubted.

The cases were first studied clinically and then without any note being given as to the nature of the disorder were sent for X-ray examinations.

The two reports were then placed side by side, and the clinical and X-ray diagnoses corresponded so closely in every instance as to make the results appear most striking.

The X-ray diagnosis of gastric ulcer and duodenal ulcer has engaged the attention of the Röntgenologist ever since the production of high-power apparatus has made it possible to obtain practically instantaneous X-rays of the gastro-intestinal tract. The old theory that there is a possibility of diagnosing ulcer by bismuth adhering to the raw surfaces is now practically abandoned inasmuch as experience has taught us that this rarely happens, because of the fact that the irritability of the raw surface produces hypermotility with violent contractions, so that it is almost impossible for the bismuth to adhere to the raw surfaces.

At present we are relying more upon the functioning of the stomach and intestines than upon the actual demonstration of the ulcer.

Curiously enough the diagnosis of duodenal ulcer is much simpler than that of gastric ulcer. One can practically always rule out the presence of duodenal ulcer but one cannot always rule out the presence of gastric ulcer.

From their studies the authors have drawn the following conclusions:

The X-ray offers most valuable assistance as an aid in the diagnosis of peptic ulcer; and although this method is not yet sufficiently well developed to be relied upon alone without entering into the clinical aspect of the disease, it is of the greatest diagnostic help in obscure cases.

In duodenal ulcer there is an excessive hypermotility of the stomach with rapid evacuation of the contents, so that the greater portion of the gastric contents is expelled within the first half hour; there is hypermotility of the duodenum with formation, usually of a vacant area, which remains fixed in all of the examinations.

3. The diagnosis of gastric ulcer can only be made in certain situations, that is, when the lesion is situated on the anterior surface of the stomach and along the anterior surface of the lesser curvature. There is in this condition an excessive irritation from the ulcer with consequent hypermotility and a spastic condition of the pylorus, so that for the time being there is practically no expulsion of the bismuth.

It is only when the spasticity relaxes that a portion of the bismuth is expelled. In gastric ulcer whatever its situation, we can always look for retention of contents. In certain instances there is a vacant area in the pylorus; there is frequently a tendency to hour-glass formation.

4. The X-ray affords an almost absolute means of differentiating between gastric and duodenal ulcer.

5. By means of the X-ray we can positively rule out the presence of a duodenal ulcer.

6. We can approximately determine the degree of healing of an ulcer which cannot be as certainly determined in any other way.

Smithies: Gastric Ulcer without Food Retention. A Clinical Analysis of 148 Operatively Demonstrated Cases. *Am. J. M. Sc.* 9: 1 edn 340. By Surg. Gynec. & Obst.

To July 9, there have been 341 operations performed for ulcer of the stomach and duodenum at the Mayo Clinic. Of this number 404 were proved to be ulcers of the stomach in 364 (65.3 per cent) of these gastric ulcers there was as definite food retention demonstrable after twelve hours by the resin and cooked rice tests (Strauss-Hausmann). 144 of these (34.6 per cent) operatively proved ulcers, no food retention was evident. Cases of ulcer with food retention permit of much easier diagnosis than those in which no food is retained and this study of histories with applied routine physical examinations and laboratory methods is designed to reduce the large number of cases whose pictures are so blurred by duodenal, gall bladder and appendix manifestations that unreserved diagnosis is rare.

The thoracic statistics relative to the cases reported and from the study of which this is the following summary.

In more than one third of operatively proven gastric ulcers the emptying power of the stomach was well maintained.

Ninety-two per cent of this group of ulcers occurred between the ages of 30 and 60, males being affected three times as frequently as females. The American-born farmer furnishes large number of them.

3. Irregularity of food ingestion with the use of alcohol is not uncommon concomitant of gastric ulcer.

4. Eighteen and nine tenths per cent had previously had typhoid fever.

5. A mild grade of secondary anemia as present in the average case.

6. Weight loss varying more than twenty pounds without marked cachexia was shown in this series. The loss may be so rapid that malignant disease is suggested, but some cases consistently gain in weight.

7. Appetite was lost or was capricious in nearly three fourths of the cases more than 65 per cent were constipated.

8. Nearly three fourths of the cases had spells or attacks of discomfort with good health in between such attacks. Such a history often extended over 30 years without alarming clinical manifestations. The attacks are usually called biliousness or dyspepsia. They often showed peculiar seasonal relationship. In 36 per cent of instances the relationship was continuous, with or without nutritional disturbances.

9. Abdominal pain or distress was a constant symptom in gastric ulcer. It was colicky in nature in more than 5 per cent, requiring hypodermic medication in 7 per cent of cases. It was frequently mistaken for appendix or gall-bladder disease, and often associated with such in addition to gastric ulcer. Night pain with loss of sleep was present in 19.2 per cent of cases. Eighty per cent of patients complained of epigastric distress frequently referred to the right costal margin or the back. In 87.3 per cent of proved ulcers pain or distress had definite relation to food ingestion. Eighty-three per cent of cases showed pain or distress coming on within four hours following eating. Nearly two-thirds of pyloric ulcer cases had discomfort from two to four hours after eating, more than one half of lesser curvature ulcers from one to three hours after eating more than one-third of posterior wall ulcers within three hours after eating and more than two-thirds of ulcers near the cardia less than two hours after eating, while more than 44 per cent of this class less than one hour after eating. Discomfort was most frequently controlled by ingestion of food, alkalis and by vomiting, 12.2 per cent required morphine.

On palpation epigastric tenderness as exhibited in 95 per cent of cases. In more than three-fourths of the thoracic cases the tenderness was not marked in the upper right abdominal quadrant. 3 per cent of cases showed palpable ridges.

More than four-fifths of the ulcers were located in the pyloric half of the stomach, and this was in general the anatomic area of greatest complaint or distress on examination.

The diagnosis of the character of the ulcer to be found on exploration as only possible when a careful anamnesis was made.

10. Vomiting was present in nearly three-fourths of gastric ulcers without food retention. About 17 per cent vomited food. Only rarely as delayed vomiting observed. Vomiting was induced in more than 1 per cent in cases to relieve pain. Nearly 40 per cent of patients vomited regularly. Waterbrash as a prominent feature in 9 per cent pyrosis and eructation in 87.8 per cent. In nearly one-third of cases vomiting came at the time of maximum abdominal distress. In 5 per cent of cases the ingestion of food precipitated vomiting more than 53 per cent vomited within three hours after eating. In 7 per cent night vomiting was frequent. Ulcers in the pyloric end of the stomach are most commonly associated with vomiting even when there is no interference with the emptying power of the stomach.

Hemorrhage. Of 40 proved ulcers in this group bleeding (hematemesis or melena) was noted in but 4.7 per cent. About one-fourth of the cases had hematemesis alone. One-third hematemesis with or without melena. While 7 per cent had melena alone. Severe hemorrhage or frequently repeated moderate hemorrhages are usually associated with faint feelings or actual fainting (4 per cent). Hematemesis was more frequent than melena,

but melena alone may occur entirely independent of the location of the ulcer. While bleeding is associated with any type of ulcer nearly two thirds of those doing so show operative evidences of perforation.

12. Test-meal findings acidity. Irrespective of location of the ulcers the average total acidity was 55, the average free HCL 43.5 the combined HCL in 8 per cent of cases, between 10 and 30.

Total acidity is most commonly higher in ulcers involving the lesser curvature and anterior wall than where other parts of the stomach are involved. High free HCL is noticeably more frequent where the ulcer is at the pylorus. While high free HCL is usual in cases in the third decade of life, this is not the rule.

Following food ingestion the great majority of cases show pain within four hours. This series shows that during this period free HCL is progressively increasing. Patients complaining of continuous distress do not necessarily have high acidity. Vomiting is not usually associated with high free HCL. More than half of the non-vomiting cases had higher acidity than was the average of those vomiting. The average free HCL of patients bleeding was 35+. More than half of the cases giving no history of hemorrhage had an average free HCL of 46.

The highest free HCL averages are associated with subacute perforating ulcer.

13. Operative findings. More than two-fifths of the ulcers were at the pylorus.

Of 50 ulcers microscopically examined in this series 4 per cent showed active inflammatory change per cent early carcinoma.

In 35 per cent of cases, diseased appendix was associated with gastric ulcer. In 5 per cent cholecystitis and cholelithiasis were demonstrated as concomitant processes. In nearly two-thirds of this group of gastric ulcers diseased appendix and gall-bladder were revealed operatively. In view of these figures it is evident that all laparotomies should be thoroughly exploratory even when well-marked gastric ulcer has been demonstrated. Operative procedure should be adopted if the individual finding on exploration. A routine technique is frequently countable for poor post-operative progress.

Prompt relief of symptoms with a comfortable after-course is the rule following operative treatment of retention-free ulcer cases. This series showed an operative mortality of 4 per cent. Rather more than 4 per cent required second operation. This usually occurred in uncommon cases.

H. A. POTTS

Corner Perforation of Gastric or Duodenal Ulcers; Inference on Modern Treatment Drawn from Histories of Patients Who Have Recovered. *Lancet* Lond., 9, 3, 1909, 600.

By BURG, Gynec. & Obst.

The author classifies the ulcers particularly under discussion as gastric ulcers, which are present at the

cardiac end or in the body of the stomach, and pyloric ulcers, which term includes ulcers on either side of the pylorus, i. e. in the stomach or duodenum. Taking up the question of the performance of a gastro-enterostomy in cases of acute perforation, he does not agree with Sir Berkeley Moynihan that a gastro-enterostomy should be performed at the same operation as that at which the ulcer was sutured. He reports 4 patients who have recovered from an operation for the perforation of a gastric ulcer between 1900 and 1904. He says that the patients owe their cure largely to two factors: (1) the situation of the ulcer and (2) the pathologic character of the ulcer.

(1) *The situation of the gastric ulcer.* From his investigations he believes it is reasonably certain that ulcers in the cardiac end and body of the stomach offer a far better chance of complete cure than do ulcers in the neighborhood of the pylorus, whether they be on the anterior or posterior wall or on either curvature. He believes that one is quite safe to argue that a gastro-enterostomy is not required in as many as half the cases of the perforation of a gastric or duodenal ulcer.

(2) *The pathologic character of the ulcer.* To sum up the results of his examination of these 40 cases and 5 years of literature, it would seem that

Many subjects of the perforation of a gastric ulcer are benefited by a gastro-enterostomy. This is particularly true if the perforating ulcer is in the neighborhood of the pylorus, gastric or duodenal.

2. It would appear speaking generally that a secondary gastro-enterostomy i. e. after the patient has recovered from the immediate danger of the perforation, is better than a primary gastro-enterostomy.

3. It is better for the patient to have a secondary gastro-enterostomy when it is required than to have the additional danger of a primary gastro-enterostomy which may not be needed. It would appear that the betting is rather against than for the gastro-enterostomy.

4. It has not been shown that a primary gastro-enterostomy presents such advantages over a secondary gastro-enterostomy that it should be practiced in the treatment of the perforation of ulcers even when situated in the neighborhood of the pylorus.

In reference to occlusion of the pylorus Corner says that without pyloric obstruction a gastro-enterostomy is no panacea for ulcers in the neighborhood of the pylorus or duodenum. This occlusion of the pylorus was first suggested by Berg. Since this date the author has always placed a ligature on the pyloric end of the stomach when doing a gastro-enterostomy for pyloric ulcers. When the patient's condition allows it, he has had better results from posterior gastro-enterostomy done after Roux's method than any other. In default of being able to do a Roux's gastro-enterostomy he believes that it is better to do a entero-entero-

tomy and place ligature, not tightly on the afferent loop of the jejunum between the entero-enterostomy and the stomach as first suggested by Fowler.

The best local treatment for perforated gastric or duodenal ulcer is to close it by suture and the abdomen with drainage. Many perforations deemed to be closed satisfactorily at the operation are not so an hour or two later hence there is justifiable doubt whether cases of perforated gastric or duodenal ulcer can recover when the perforation is not closed, or at least are imperfectly closed. He says the firm closure of the perforation and of the abdomen, without drainage, is undoubtedly the best treatment that can possibly be carried out. If this fails appears to afford doubtful closure of the perforation no further time should be spent on it, but the ulcer plugged and drained this drain is removed in about 36 hours under anesthesia with nitrous oxide gas and is not replaced. In regard to the occurrence of ventral hernia, examination of the patients who had recovered from an operation for operations for the perforation of gastric or duodenal ulcer showed the facts. First, it may be presumed that ventral hernia are not infrequent after an operation for the suture of perforated gastric or duodenal ulcer. Secondly where two incisions were present, it was more usual to have hernia through the scar in the upper abdomen than through that in the lower abdomen.

DONALD C. BALFOUR

Faroy. Results of Surgical Treatment in 69 Cases of Malign Cancer and Cancer Imbedded Upon Ulcers, of the Stomach (Résultats de traitement chirurgical de 69 cas de cancers et ulcero-cancers gastriques). Arch. de med. et d. p. digest. Par. 9, 1, vol. 6. By Journal de Chirurgie.

Of 60 cases which Mathieu has had operated upon for carcinoma of the stomach since 1907 Faroy has only 69 records which are sufficiently complete to be serviceable for analysis. These allow study of the post-operative course and the conditions favorable to prolonging life.

All the pylorotomies have been followed by recurrence.

The patients on the service of Mathieu who are in too feeble or cachectic condition are not operated upon because in such no benefit is derived from intervention.

Out of eight exploratory laparotomies, six died soon after the operation (3 on 3 and 30 days) two survived (one at months, the other one year).

Of thirty-nine gastro-enterostomies, eight survived from few hours to few days eleven did not survive six months nine survived for six months to one year nine from one year to two years one has survived two years (1 year and 6 months) one three years (3 years and 4 months).

Among these thirty-nine must be included nine ulcero-cancers (carcinoma developing upon pre-existing ulcer) five (55 per cent) have not sur-

vived one year four (45 per cent) have survived over one year.

Of the remaining thirty (pyloric cancers or cancer of the lesser curvature) 77 per cent have not lived one year 3 per cent have lived more than one year.

Eleven simple pylorotomies (Billroth I) were performed five died in few days five survived from one to four years and six months one (total gastrectomy) survived three years.

Six Billroth II two died in ten and fifteen days respectively four survived from two months to a year and ten months. Thus, 45 per cent died in a few days and 55 per cent made satisfactory recoveries. Of the sixteen cases ten had an ulcero-cancer and six cancer of the pylorus. The results appear better the ulcero-cancer.

The extent of the neoplasm, if it causes a stenosis, should not be a contra indication to gastro-enterostomy since this allows the patient to be nourished.

According to the character of the tumor the results are different, thus in ulcero-cancers the survivors of more than one year are 66 per cent in cancer proper they are only 33 per cent.

The results are not so good in the young on account of the more rapid development of the neoplasm. Immediate improvement in general follows operative intervention and is very marked in most of the cases, being evidenced by increase of appetite. Increase in weight is almost constant, the degree and rapidly varying. Of seven radioscopic examinations, in six cases the stomach functionated perfectly in one case the stomach functionated slightly and six months later not at all. In two cases of the seven, the pylorus had regained in part its function. The dilated stomach sometimes retracted. But soon the symptoms of the disease recurred, at first intermittently and became constant toward the end namely digestive disturbances, pain, vomiting and hemorrhage if the tumor had been left. In some cases the patients complained of diarrhoea which is dependent upon the hypacidity of the gastric juice which can be effectively treated.

Finally in two cases there has been noted the return of the symptoms of stenosis as result of invasion of the stomach by the neoplasm. Death occurred most often as result of progressive cachexia in other cases it resulted from the recurrence of stasis and stenosis 4 times as result of metastatic complications.

J. OLSBERG.

Well. Statistic of Resection of the Stomach (Beitrag zur Statistik der Magenresektion). Berl. klin. Wochenschr. 19, 3, 1, 300.

By Zentralbl. f. d. ges. Chir. I. Grawatz.

Of the 800 stomach operations undertaken in the last 5 1/2 years in the clinic at Breslau there were 57 resections of the stomach, of which 49 are discussed in this paper. Among these there were fourteen cases of ulcer carcinoma which were resected because of the impossibility of making positive diagnosis. Of these three died after the operation. In 80 per

cent of the cases tumor or resistance could be felt before the operation and so a diagnosis was made. Pylorus tumors which are easily palpable give the best possibility for resection. To determine the possibility of a resection, laparotomy alone could decide. Bilroth II is the method of choice. Operation was done in two steps in three cases. Two cases were cured and in the third there developed three weeks after the first operation an enlargement of the tumor to such an extent that it was not operable; therefore this procedure is not used as routine. The mortality of operation of the 155 cases operated for carcinoma is 1 per cent. The operations were performed by twelve different operators. In 75 per cent of the cases at autopsy there was pus in the abdomen. The final results showed continued cure of 100 cases operated for ulcer carcinoma. Of the cases operated for carcinoma only 3 per cent showed lasting results. These figures can be improved only by operating more frequently than before in the earliest stages of carcinoma of the stomach.

SALZ.

Berg. The Influence of Gastro-enterostomy on Gastric and Duodenal Ulcers. *J Am Med Ass* 913 ix, 23 By Surg., Gynec. & Obst.

Berg says particular stress on the following points: Simple gastro-enterostomy can influence pyloric duodenal ulcer only when there is an attendant pyloric spasm. In the absence of the latter all food passes through the patent pylorus, even though gastro-enterostomy is present, and so the ulcerated area is not protected from trauma.

The reflux of duodenal contents into the stomach is a natural attendant on gastro-enterostomy and serves to alleviate the distressing symptom of hyperacidity but it does not favor healing of the ulcer.

3. Gastro-enterostomy will not protect against recurrence of the ulcer. Barring the question of malignant degeneration of healed or healing ulcer excision of an ulcer has no particular merit over gastro-enterostomy toward preventing recurrence or recrudescence.

4. Pylorotomy does protect against recurrence but it has attendant higher mortality. Gastro-enterostomy with pyloric exclusion favors healing of the ulcer and has the same value in preventing recurrence as has pylorotomy with the advantage over the latter of very low mortality (5 to 1 per cent against 10 to 4 per cent).

It has found the occluding ligature safe and easily applied. A heavy Pagenstecher thread is passed behind the stomach just proximal to the antrum then threaded on curved needle and one or two slits are taken through the peritoneum and muscularis of the anterior wall of the stomach, to prevent the ligature from sliding, and on slowly tying the mucous walls of the stomach are brought together but care is heeded to avoid constricting the circulation. This operation has all the advantages and none of the disadvantages of pylorotomy. It is the

only way in which on the basis of preventing the passage of food through the patent pylorus, we can prevent the recrudescence or reformulation of gastric ulcer since with healing of ulcer after gastro-enterostomy the pyloric spasm, which causes the stomach contents to flow through the artificial opening, subsides, the pylorus opens, the artificial opening closes and food once more passes through the pylorus over the ulcer surface.

Berg has practiced this operation of pyloric exclusion many times since 1901 for bleeding ulcers in the pyloric region, for duodenal fistula or accidental wound of the duodenum and for simple or callous ulcer in the pyloric portion of the stomach. He has practically never seen any bad results.

L. Q. DW

Hertz. The Cause and Treatment of Certain Unfavorable After-effects of Gastro-enterostomy. *Proc Roy Soc Med*, 93, 74, 33. By Surg., Gynec. & Obst.

Hertz draws attention to some of the unfavorable after-effects of gastro-enterostomy. A very small percentage of patients upon whom gastro-enterostomy has been performed have at some later period complained of symptoms which were trivial in comparison with those of the condition for which the operation was carried out, but which were none the less sufficient to prevent the patient from regarding the result of the operation as entirely satisfactory.

The author claims that the symptoms in a considerable proportion of cases are due to: (1) Too rapid drainage of the stomach or (2) situation of the stomach above the upper level of the gastric contents. In the former the patient complains of a sensation of fullness which occurs during each meal and disappears rapidly. This sense of fullness is localized slightly lower than the former position of pain or discomfort for which the operation was performed. In some cases there is slight diarrhoea, the bowels being opened after each meal and, except for the first stool passed in the day are unformed or even fluid. In this group of cases, X-ray examination reveals a small, hypertonic stomach with too rapid drainage of the food into the jejunum. The jejunum is consequently distended in an abnormal way and brings about sensation of fullness. The diarrhoea is mainly due to the irritation of the bowels by food which has escaped too rapidly from the stomach for sufficient gastric digestion and consequently there is an absence of the normal stimulation of pancreatic secretion by hydrochloric acid in the duodenum and the food does not undergo sufficient compensatory digestion in the intestines.

Complete relief or considerable improvement occurs if the patient lies down for an hour after each meal as the stomach empties itself less rapidly in this posture. In addition the patient should be given some active pancreatic ferments at each meal to compensate for the deficiency of the normal secretion. Small doses of belladonna and cocaine given half an hour before meals are also of value.

In the second class of cases, where there was extreme dilatation of the stomach, the author noted that in the vertical position the whole of the gastric contents accumulated in the lowest part of the stomach in such a way that their upper limit was below the pylorus. In such cases nothing could leave the stomach, however strong the peristalsis, until the patient lay down. By supplying the patient with an abdominal support and making him lie down for an hour after meals on his left side complete relief was eventually obtained.

C. A. Gordon Hay

Glaser and Kreuzfuchs. Pylorospasm (Über die Pylorospasmen). *Wien. med. Wochenschr.* 91, 18, 58. By Zentgraf. *J. gen. Chir.* 1, 1, Grenzgeb.

The authors contend that the motility of the stomach is influenced not only by the gastric secretion itself, but also by the secretory conditions of those parts of the digestive tract beyond the stomach particularly by those of the duodenum (Palo-Chimreflex). Because of the X-ray he studied pylorospasm in connection with ventricular hyperhilia gastritis duodenal ulcer biliary and pancreatic affection.

They differentiate between immediate and delayed pylorospasm. Immediate ulcer the former occurs immediately after filling of the stomach and has clinical of this condition. The spasm is soon subside and therefore not determined by the length of time the ingesta remain in the stomach.

On the contrary delayed spasm occurs affections of the duodenum biliary passages or pancreas. It too is synchronous with the pain, but appears at a later stage in the digestive process. The pain depends in both instances upon the pylorospasm (its location being lentical and this is no way dependent upon the mechanical or chemical considerations of the organs involved as the authors point out most conclusively).

Pylorospasm and physiological pylorus reflex depend alike upon the relation between the acidity of the stomach and the alkalinity of the duodenum. The authors have formulated the relation as follows: HCl excess of alkalinity = pylorospasm. HCl equal to or less than alkalinity = open pylorus and automatic gastric motility. From the acidity alone one cannot draw any conclusions regarding pyloric action.

In man, the acidity of the stomach and the alkalinity of the pancreatic juice are at all times and under all circumstances equivalent values from a physiological standpoint. OCELE.

McGlaughlin. Intestinal Obstruction. Clinical Study of 181 Cases. *J. Am. Med. Ass.*, 9, 3, 12, 733. By Sorg, Gynec. & Obst.

The author analyzes 8 cases of intestinal obstruction. He studies the clinical picture of early curable obstruction and endeavors to determine the

proper character and extent of operation when gangrene and toxicemia are present.

He divides the course of obstruction into three stages: (1) the stage of onset; (2) the stage of compensation; (3) the stage of complications (local or systemic). In most cases the symptoms of the various stages merge into each other irrespective of definite periods of time.

Symptoms of onset. The most constant initial symptom is paroxysmal abdominal pain. This is present early in all cases. Pain with constipation occurred in 3 per cent of the cases. There may be diarrhea and bloody stools, especially in intussusception and intestinal tumors. The usual sequence of symptoms is pain, vomiting, and constipation. Gastric lavage does not relieve vomiting as in acute dilatation. There may be initial vomiting or simply hiccough. From statistics of operated cases the author concludes that abdominal pain alone or pain with vomiting or constipation, or both which are not relieved by lavage and enemata are indications for immediate operation. He notes that purgatives may do harm.

Symptoms of the second stage. The most characteristic symptoms are visible peristalsis or visible stiffened intestinal coils. In addition, vomiting fecal vomiting distention (regional or general), usually with tympanites, leucocytosis, and lowered blood pressure are present. Purgation should not be given in the second stage unless the patient is prepared for operation. Immediate operation is indicated when an emema gives no result either as to bowel movement or as to relief of symptoms. In the second stage the symptoms are not relieved in thirty-nine cases; eighteen are operated and recovered; eleven out of twenty-one operated upon later died (gangrene as present).

Symptoms of the third stage. These are toxæmia, gangrene, peritonitis, and altered kidney function.

Operative treatment. This varies according to the nature of the obstruction and the condition of the individual case.

The author concludes that in the first stage the best operative procedure is relief of the obstruction. The same is true in the second stage if gangrene is not present. If it is, resection is indicated, or enterostomy and resection, or simple enterostomy with the loop packed off outside the abdomen, according to the condition of the patient. In the third stage enterostomy is best, either alone or with other procedures. The first duty in this stage is to remove toxic material by opening the bowel above the obstruction.

MAXWELL J. GLENN

Whipple. Stents and Bernstein. Intestinal Obstruction. I. A Study of Toxic Substance Produced in Closed Duodenal Loops. *J. Exp. Med.* 9, 1, 171, 186. By Berg, Gynec. & Obst.

The authors have made a study of the problems of high intestinal obstruction by means of closed duodenal loops in dogs. By using closed, washed loops they were able to exclude such factors as bile,

gastric and pancreatic juices and food products, and bacterial action was minimized. The loops were so made that the circulation was not disturbed and the intestinal coats were not injured. It was found that all these dogs died in about 48 hours (none lived more than three days) with the symptoms of high intestinal obstruction — low temperature and blood pressure, diarrhea and vomiting, muscular tremors, splanchnic congestion and general collapse. The loops contained at the time of autopsy varying amounts of fluid, pasty material. When the loop was drained at the time of operation, it was found that some of the dogs lived a month or more. Others died in 10 to 3 days with typical symptoms.

The work was carried further in the study of the nature and origin of the toxic substance produced. The material from the loop after dilution, autolysis, sterilization and filtration, produces typical toxic effect when administered to a normal dog intravenously, intraperitoneally or subcutaneously. The only difference noted is in the rapidity of the fatal toxic absorption from the latter two sites being slower. The liver seems to have no detoxicating action as dogs with Eck fistulae survive no longer than those without.

No secretin was found in the duodenal fluid and the pancreatic secretion was not influenced by the injection of the material.

The authors conclude that there seems to be no escape from the conclusion that a toxic substance is formed in the closed duodenal loop and that this material is absorbed from it and causes intoxication and death.

JAMES F. CANNON.

Whipple, Stone and Bernheim. Intestinal Obstruction II. A Study of the Toxic Substance Produced by the Mucosa of Closed Duodenal Loops. *J. Exp. Med.* 9 3, xvi, 307. By Surg., Gynec. & Obst.

This paper comprises report of series of experiments showing that toxic substance is produced by the intestinal mucosa in closed duodenal loops and can be demonstrated in it, and that the poison will not be formed when the mucosa has been destroyed by chemical means. No such poison can be demonstrated in the normal mucosa.

Blood taken from dog with a closed duodenal loop was found to be non-toxic to normal dog. Further blood taken from a dog 48 hours after it had received a fatal dose of intestinal fluid intravenously was found to be non-toxic to normal dog. This would show that the toxin must be fixed by the tissues very rapidly. No anaphylactic reaction was produced by second injection of blood from poisoned animal, showing that no foreign protein is present. The evidence that the toxic substance can be isolated from the mucosa was obtained as follows: The mucosa from dog with a closed loop was washed, then scraped off, diluted with salt solution and autolyzed with chloroform and alcohol. A tolymus was allowed to continue for as long as five weeks, in one instance. The material was then

heated to 6 C., centrifuged and filtered. When given to normal dogs, intravenously, typical symptoms of intoxication were produced. When large amounts were given death occurred. No intoxication was produced when the same procedure was carried out with normal mucosa. Intestinal mucosa from a dog poisoned with duodenal loop fluid was also non-toxic.

Attempts at removing the bacterial element in the closed loops by means of washing with bichloride of mercury and other inhibiting solutions, had no effect on the appearance of toxic symptoms. It was found that if the mucosa of the loop was destroyed by sodium fluoride, toxic substance was not formed. This was proven by the observation that no toxic effect was produced in normal dogs when the loop fluid was given intravenously. This the authors believe is the final proof that the toxic substance is elaborated by the duodenal mucosa.

It was observed that when toxic loop contents were injected into the jejunum of a normal dog no effect was produced, proving that the toxic substance is not absorbed by the normal intestinal mucosa.

JAMES F. CANNON.

White, Andrews, Saundby, Lane, Harley and Colyer. Symposium on Alimentary Toxemia. *Brit. M. J.* 9 3, 4, 337. By Surg., Gynec. & Obst.

White, in introducing the subject said that the term Alimentary Toxemia at once showed our ignorance. Cases should be grouped according to the variety of the poison, and not according to the point of entrance of the poison. Unfortunately the present state of our knowledge this was impossible. The simplest alimentary toxemia was that due to pyothorax-alveolaris. This was capable of producing various ill effects, either by impeding mastication by the wallowing of micro-organisms, or by causing septicemia by absorption of organisms from the gums, of which he had seen several fatal cases. The question of the production of bacterial poisons in the alimentary tract was very wide one. External temperature was said to play part and some observers had stated that the intestinal contents of arctic animals were almost sterile.

Intestinal bacteria usually remained in their customary habitat but various influences might induce variations from this normal. He mentioned the case of a woman in whom lavage always showed the gastric contents to be swarming with bacillus coli.

Heister had to tell us that there were probably three groups of cases of alimentary toxemia caused by micro-organisms.

(a) The indolic, in which the probable fault was that the colon bacillus invaded the lower part of the small intestine, and the patient was unable to digest carbohydrates, and usually passed abundance of indican.

(b) The saccharo-butyric, in which the organism mostly concerned was the *B. aerogenes capsulatus*, the abnormal changes here occurred in the large intestine.

() A group combined of and b.

It was necessary to be in mind when thinking of alimentary toxemia, that the culture medium was as important as the bacteria—a good example of which fact was the improvement which followed the withdrawal of carbohydrates in cases of carbohydrate dyspepsia. Much work had been done on the action of indica and ethereal sulphates in the rumen but although excessive indican often associated with serious intestinal disturbance yet it was generally allowed that the poison-producing alimentary toxemia as neither indol indican nor ethereal sulphates. M. Hanby and T. Orr had isolated creatin-destroying organisms from the alimentary canal, and found in animals another bacillus produced β -methylamylamine—a powerful poison, from histidine. This poison probably destroyed in the liver and was suggested as cause of cyclic vomiting.

White suggested that enterogenous cyanosis was form of alimentary toxemia from which much might be learned, because the chemical bodies involved in its etiology—namely hydrogen sulphide and the urates—were simple and readily investigated. Nevertheless comparison of little was known about this disease.

Lately it had been urged that much insistence that intestinal toxemia as due to intestinal stasis and the speaker thought that this was very probable true nevertheless, it must be remembered that some people are perfectly well if their bowels are only opened once a week. If the poisons which are formed, the quantity of them produced could depend upon the number of organisms, and the suitability of the medium for their growth might be so favorable that toxemia could result without any stasis.

Those who held that stasis was mechanical in origin differed as to its use and evidence deduced from X-rays must be received with much caution.

The speaker considered briefly the methods of treatment and urged that the result of surgical procedure should be carefully considered and should be made the subject of the fullest possible reports.

Andrews dealt with the bacteriology of the alimentary canal, and stated that the habitual tenants of the gut were facultative aerobes, and that even strict aerobes could grow there freely. Certain groups of bacteria had specifically adapted themselves to life in the intestine and had practically abandoned other modes of existence, as for example the B. coli group, most of the streptococci and certain anaerobes. In the healthy buccal cavity bacteria were present according to Gordon to the number of 100 millions per cubic centimeter of which at least nine tenths were streptococci. In the stomach and duodenum bacteria were extremely few and the small intestine, as long as the contents were fluid their number was not very high. In the caecum and colon the conditions for bacterial growth were very favorable and the number of

organisms per gram of normal faeces ranged between 100 and 1,000 million.

The speaker discussed the various species of flora of the alimentary canal and dealt especially with the distinctions in the varieties of streptococci met with. If could see no good evidence that it was of benefit to us to have our intestines swarming with bacteria, many of the products of which seemed harmful to us. Bacteria were not altruists, but took advantage of the favorable conditions in the gut purely for their own good, and if we escaped harm it was solely by the evolution of various protective mechanisms.

Retention of the contents of any portion of the gut produced an abnormal bacterial flora and the speaker discussed the changes produced by infection of the gums and considered the bacteriology of the gall-bladder. In the colon, retention of the contents favored the multiplication of the normal bacteria and at the same time gave opportunity for the absorption of their toxic products which might be produced.

Andrews defined alimentary toxemia as being the absorption from the alimentary canal of chemical poisons, of known or unknown composition, in sufficient amount to cause clinical symptoms, the blood having served as a channel of distribution to the tissues which are poisoned. He mentioned the frequent slight invasions of the blood stream by organisms growing in the gut, and pointed out that his definition excluded these cases. He discussed the possible function of the thyroid gland in neutralizing the harmful effects of the absorption of toxins and mentioned the probably feeble toxic effect of the products of protein decomposition. There was possibility that excessive bacterial activity in the intestine might have a negative as well as positive influence by causing destruction of substances necessary for normal tissue metabolism.

Saxby considered the symptoms and treatment of alimentary toxemia from the medical standpoint. He spoke of vegetable and animal food poisons, mentioning phallosine, muscarine and Dover among the former and discussing the production and effects of the ptomaines and leucotoxins among the latter. Certain foods became poisonous from the bacteria of some principles normally present and the speaker mentioned beriberi, pellagra and scurvy in this connection. Saxby discussed to some length the symptomatology of food poisoning, and stated that the connection of such diseases as pernicious anemia and chlorosis with bacterial conditions in the intestine as by no means proved. He did not consider that mere fecal retention caused pathological symptoms but held that constipation as not uncommon cause of chronic intestinal catarrh and that it was these inflammatory consequences that the symptoms associated with constipation must be attributed. He mentioned the various protective mechanisms at work in the body and proceeded to discuss the principles of the treatment of alimentary toxemia, which he said should be directed to prevent the further formation of poisons and to the destruc-

tion and elimination of those already present. This might be accomplished by cutting off the supply of material by reinforcing the digestive juices, by bacterial action, by drugs and by hydrotherapeutics.

He concluded that under normal conditions natural protective agencies are sufficient to shield the body from the dangers of poisons produced in, or introduced into the gut in moderate quantities. That infrequent or incomplete evacuation of the colon did not in itself cause disease, but that such symptoms as arose resulted from breakdown in the protective machinery. The diet should be mixed one of both animal and vegetable composition. Finally when it seems to prevent he held that treatment should consist in eliminating the poison present, preventing further introduction, and reinforcing the natural protective agencies. Removal or excision of the colon is justifiable in the presence of a true disease in its walls.

LANE discussed the surgical aspect of the condition. He held that alimentary toxemia resulted from chronic intestinal stasis, and the consequent infection of the gastro-intestinal tract due to improper feeding in early life and subsequent to the prolonged assumption of the erect posture of the trunk. The changes that resulted in the drainage scheme are evolutionary in nature and simply mechanical in origin. Bands representing the crystallization of adhesions, developed to oppose the downward displacement of the viscera. At their commencement these bands served a useful purpose, but later they tended to impair the function of the part and consequently to shorten life. The effluent through any portion of the intestine could be controlled by mechanical means applied externally as, for instance by band, a membrane or an appendix, while the contents of the intestine might also be drawn back by the accumulation of material beyond. This as illustrated by the obstruction in the long pelvic colon seen so often in tuberculosis and rheumatoid arthritis in young people.

The results of stasis showed themselves in two distinct ways. The mechanical results of delay in the small intestines were interference with the emptying of the duodenum, with consequent inflammation, ulceration, and, later, cicatrization in its first part. Consequent on this came spasm of the pylorus, with dilatation of the stomach. The strain of the heavy stomach, often increased by a loaded transverse colon, induced inflammation and ulceration of the lesser curvature of the stomach at the site of greatest strain. An ascending infection of the intestine took place leading to disease of the organs, such as the pancreas and gall-bladder which opened into the gut.

Besides the mechanical changes, the chief trouble consequent on stasis was the intoxication produced by the absorption from the gut and especially the small gut of more toxic material than could be eliminated. This intoxication produced degeneration in every tissue in the body. The effect of the poisoning was shown in the heart, vessels

kidneys, and muscles, and induced a great loss of fat. The skin became thin and pigmented. The breasts showed degenerative changes and the thyroid and other ductless glands might be affected. The general temperature was abnormal and that of the extremities markedly so. Microbic poisons might be present. The cerebro-spinal system was markedly affected. The patient was depressed, stupid, unfit for work, and suffered from headache and inter-neuralgia and neuritis. The mental condition of these cases often bordered on insanity. Changes in the organs of special sense were common.

An important effect of stasis was a lowering of the general resistance of the body which was perhaps most commonly seen in the frequent occurrence of infection of the gums. Lane did not believe that tubercle or rheumatoid arthritis could exist except in the presence of uterine stasis, and adduced evidence in support of this statement.

He wished to deal with primary causes rather than end results. It was necessary in all cases of a toxic situation resulting from stasis to improve the drainage of our bodies. Whether this could be effected sufficiently by the use of laxatives as an abdominal support and diet or whether operative treatment as required depended on the nature of the case. X-rays afforded great assistance indicating not only the rate of passage of the contents through the gut, but often the exact nature of the obstruction as well as many of the changes in the heart and aorta which were often serious complications of intoxication.

In most cases, obstruction of the ileal effluent was at fault, and this could be dealt with by the removal of a controlling appendix, by the division of an obstructing band or in other cases by fixing the divided ileum to the pelvic colon. This last method of treatment was by far the most efficient and produced marked and immediate improvement. Occasionally it was necessary to remove the large bowels as well. Lane stated that chronic intestinal stasis was subject growing very rapidly in importance and that it could not be decided merely by constipation or previous experience but had to be dealt with by the light of hard facts as afforded by the results of operative interference.

HARLEY considered the toxins of the alimentary canal and mentioned the difficulties connected with the subject. He discussed the products occurring in the gut which might be poisonous, and mentioned the substances from which they were derived. The thinness of the epithelial cells in children and old people perhaps explained the greater frequency of toxic attacks in them. Delay in the intestines led to a marked increase of aromatic substances in the bowel, which were eliminated as aromatic sulphates and in stasis or dilatation of the cecum there was marked increase of indican in the urine. The persistence of an increased quantity of indican and aromatic sulphate in the urine was significant and these patients had a muddy complexion with lassitude and headache.

Jackson Membranous Pericolicitis and Allied Conditions of the Ileocolic Region. *Ann Surg Phila.*, 9 3, 1vii, 274.

By Surg., Gynec. & Obst.

In this article Jackson described in detail membranous pericolicitis. The membrane in this condition is usually a transparent, vascularized web-like structure with bright red vessels running parallel with the long axis of the ascending colon. In some instances it appears as though the membrane came to the colon from the lateral parietal wall just above the cecum and courses upward, to disappear beneath the liver on the superior layer of the transverse mesocolon. In other instances it seems attached to the under surface of the liver. It appears as though it had begun above and descended on the colon to its termination usually just above the cecum. Cases have been recorded where it passed cross and upward to the transverse colon.

The membrane does not resemble the ordinary conception of adhesion. It is never adherent to the abdominal wall nor to any contiguous loops of small intestine. Instead it resembles, more closely than anything, thin pterygium. In recent cases the membrane is quite free and produces but limited restriction to the underlying colon. In more advanced and characteristic cases it seems to bind the colon close to the posterior abdominal wall, and produces such marked angulations and convolutions of the colon as to practically produce stricture of its lumen.

Etiology. There are many theories.

Congenital. Many regard it as of congenital origin, but differ as to exact anatomical derivation.

Mechanical. Some regard it as physiological response to mechanical demand.

Inflammatory. Two general theories exist under this heading, on assuming spreading peritonitis from points of original infection without, and the other reaction from infection within the colicous gut.

The author himself inclines to the belief that varied causes may be responsible.

Symptomatology. The following symptoms combined are usually sufficient to establish definite clinical syndrome.

Pain.—This pain practically always has to some period a definite abrupt onset and is marked by periods of acute exacerbations. It is diffuse over the right side of the abdomen though oftentimes accentuated over cecum and hepatic flexure.

Tenderness.—Diffuse tenderness without any attendant right rectus rigidity.

Constipation.—Marked particularly in well developed cases.

Gastric disturbances.—Oftentimes resembles chronic gastritis or gastric ulcer.

Loss of weight and tone.—In long standing cases, patient shows general picture of intestinal auto-intoxication.

Neurasthenia.—Develops late and may be overshadowed by melancholia.

Differential Diagnosis.—Diagnosis can nearly always be made from careful study of symptoms. Additional evidences may be gleaned from use of X-ray following ingestion of bismuth. Condition must be differentiated from (1) chronic appendicitis, (2) gall bladder disease, (3) gastric ulcer, (4) disease of ovaries, (5) chronic colitis, (6) Lane's kink, (7) kidney stone.

Treatment. 1. Non surgical.—This would involve (1) the proper drainage and the removal thereby of causative factors (2) the establishment of a correct dietary to factors of fermentation, putrefaction, and irritation (3) methods for development of normal evacuant capacity of a gut whose muscular tone is impaired or interfered with—as by massage and exercise, (4) direct medication of the colon mainly through colonic lavage aided by varied possible specific medicinal agents (5) external supports to correct malpositions and obviate stasis of gravity.

Surgical Treatment.—(1) Ileocolostomy has been used as means of short-circuiting intestines. Colon may or may not be resected. (2) Cecostomy and appendectomy have been used in some cases on the basis that membrane was result of chronic colitis. (3) Cecopexy has been advocated in cases of mobile cecum. (4) Plication of cecum is used where cecum is dilated and thinned. (5) Where angulation of flexures is marked, operation similar to Finney's proctoplasty has been advocated. (6) Membrane itself may be simply divided or removed completely.

In conclusion the author suggests that judicious surgical selection from all the methods will give the best results as no one method should be followed as a routine. He further emphasized the following up of any surgical procedure by vigorous after-treatment along general lines before indicated.

R. W. McANULTY

Pago Contribution to the Study of the Congenital Megacolon (Contributo allo studio alla megacolon congenita). *Gazz. d. osp. di via Milano*, 9 2, 1917, 300.

By Zentralbl. f. d. ges. Chir. u. i. Ginnab.

The author shows that the above named clinical picture has improperly been called Hirschsprung's disease and in 1846 was described by F. Hall as such. The author describes the different types of mega colon.

Simple megacolon in which the length of the small intestine is that of the large, which is normally seven or eight to one is increased in favor of the latter.

Megacolon in which there is thickening of the entire colon in diameter as well as in the thickening of the wall. 3. Enlargement of part of the colon, with or without compensatory hypertrophy and dilatation of the central section of the colon. The pathologic changes of the individual layers of the intestinal wall of these sections of the intestine are accurately described. They are explained upon embryonic, nervous, or circulatory causes. The symptomatology of the

new-born, the child, and the adult it is given. Death follows through autolysis, intestinal colic, peritonitis following perforation, intestinal occlusion or through cachexia. In more than 57 per cent of the cases the disease ends fatally. 75.6 per cent of the patients are men. The etiology of the disease is unknown, it is usually congenital. Internal treatment of the condition is useless. The author discusses the different methods of operations and advises against colostomy (artificial anus high up). Better results are obtained by ileocecectomy or the partial or total colectomy. The ideal operation is that suggested by Parlaavecchio which again gives normal anatomical relationships. **BOUAT.**

Challer and Perrin. Immediate and Remote Results in Combined Operation for Cancer of the Rectum (Résultats Immédiats et Éloignés de l'opération combinée dans le cancer du rectum). Lyon, 1935, 11, 50. By Journal de Chirurgie.

The work of Challer and Perrin, a statistical study of much value the authors have collected all the published observations of combined operations, amputations or resections, and they have added certain number of unpublished cases belonging to Albertin, Delore, Hartman, Lagoutte, Leclerc. As a result they present total of 80 cases, the summary of which omits the first part of their work. The following are the principal facts from these important statistics:

Immediate results. Operative mortality. The total mortality is 83 in 87 operations of which the result is known that is 44.6 per cent. If the isolated cases are eliminated and only the statistics of surgeons who have practiced an appreciable number of combined operations are used it is seen that the mortality in these statistics varies between 6.6 per cent (Joannesco) and an average of 4.8 per cent.

As is generally recognized although the difference is less striking than some statistics based on less numerous cases would lead one to believe Challer and Perrin find the operative prognosis better in woman (3 per cent) than in man (fifty-two per cent). The gravity of the operation increases progressively with age. It is practically the same in amputation (43.8 per cent for 26 cases) as in resection (43.5 per cent for 6 cases). Infection (peritonitis, pelvic cellulitis, septicæmia, etc.) is the chief cause of post-operative mortality all the more as it is necessary to attribute to it the greater part of the deaths attributed to shock or collapse. The other causes of death are anuria, pulmonary complications, intestinal obstruction (3 cases), hemorrhage.

Among the complications which are not fatal but delay cure are found retention of urine, more or less prolonged, wound of the ureter (Millard) or of the bladder (Rottger) fecal fistula following gangrene of the upper end of the intestine the development of a stricture at the site of union of the two ends of the bowel (3 cases).

Lat results. The number of observations used in this connection are only eighty-five. Of this number are noted fifteen recurrences and six deaths by metastases of which some have been relatively late (after 3, 5, 6 years) which again show the insignificance of the arbitrary period of three years, after which number of authors regard operative cases as cured. Forty-one survived without recurrence from two months to three years fourteen survived without recurrence from three to twelve years the nine other cases died as a result of later current diseases or without the cause of death being known (three of them had been without recurrence 3, 4, 9 years). The proportion of recurrence is greater in woman probably by reason of the lower primary mortality. The authors regard these results as clearly superior to those of their methods of excision of the rectum.

Functional results. This analysis is of interest only in connection with resection, for in amputation it is a question only of iliac or perilectal anus. In resection continence has always been perfect (except in one case of Rottger) the sphincter retaining its normal function. On the other hand, there are certain number of cases with fistula, some of which have necessitated secondary suture or an anastomotic operation, and, in three cases, the union has failed and there has been necrosis of the upper end and the excision of the anal anus.

CH. LACHOURNIE.

Deaver. Fecal Fistula. Through Gut. 1935, XXV, 53. By Surg., Gynec. & Obst.

The various types of fecal fistula are described, the treatment of each type is discussed, and a series of 60 cases reported.

Fecal fistulae are of two kinds, external and internal. Internal fistulae occur between the intestine and any other hollow viscus such as the bladder, Fallopian tube, gall-bladder, ureter. Curious as are these conditions, they are usually the result of neglected pathology and dilatory treatment. This paper is concerned chiefly however with the external variety of fistula.

Anatomically there are two kinds of external fistulae first, those which communicate with the outside world through tortuous tract involved in adhesions and second those in which the bowel is immediately adherent to the abdominal wall. The first variety is more apt to heal spontaneously than the second.

In the first variety the opening is usually very small and the discharge is usually very slight and often intermittent. In the second variety the discharge may be very profuse, or the entire fecal contents may discharge through the opening. This latter condition occurs, however only when there is a well marked spur which prevents the contents passing on into the distal portion of the bowel, and this condition is most frequently found in cases where artificial anus has been produced at operation.

Out of the 100 cases reported 73 were cases of appendicular abscess. This shows very strikingly the importance of appendicitis in the etiology of fecal fistula and also emphasizes the necessity of the early operative treatment of appendicitis. The average duration of the cases of appendicitis before operation was three days, far too long a time with our present means of diagnosis.

The early symptoms of fecal fistula are the intestinal symptoms of intestinal obstruction. These are paroxysmal pain, nausea, distention, inability to pass flatus freely if at all. The pulse at its extremes and the temperature rises sometimes to 104 or 105°, usually about 103°. The question naturally arises in the patient developing a fecal fistula or secondary abscess. As soon as the fistula is established the symptoms abate except the fever which usually lasts a few days longer. The skin about the sinus is very painful, becomes inflamed, due to the irritation from the discharges.

The treatment of fecal fistula is best carried out by leaving them alone for a considerable length of time and merely protecting them with sterile gauze. The author quotes cases which lasted for a very long time under rigorous treatment such as leucotomy, curetting, etc., but which healed with remarkable rapidity when left alone. General treatment in the way of good hygienic surroundings, good food, etc., are of great importance.

Operative treatment sometimes becomes necessary but should usually not be adopted until many months have elapsed without closure. The operative treatment consists in directing down the origin of the sinus, closing its exit from the gut and covering the closure with peritoneum. Many times it is necessary to deflect the fecal current away from the vicinity of the sinus by means of lateral anastomosis or even by resection. The location of an obstruction distal to the location of the sinus must be determined before the operation is completed.

JAMES H. SMITH

LIVER, PANCREAS, AND SPLEEN

Smith, Morphological Changes in Tissues with Change in Environment; Changes in Gall-bladder Following Autoplastic Transplantation into Gastro-intestinal Tract. *J. Med. Research* 9, 3, 222, 300. By Surg. Gynec. & Obst.

With the development of various methods of tissue and organ transplantation the behavior of the transplanted cells under new conditions of environment has become increasingly an object of study. In this way the viability and the function of various transplanted tissues has been determined and consequently the conditions favoring, on the one hand, continued growth and on the other the ultimate destruction of such tissues, have become better understood. Smith in this article records the results of a series of experiments and of his study of the subject. He first reviews the literature of the work already done then considers the previous ob-

servations of changes in the histology of the gall-bladder in communication with the intestinal tract and lastly records the results of his own experiments. The animals which Smith used in this work were the dog, cat and opossum. The experiments aimed at studying early and late stages especially in completely transplanted gall-bladder tissue when the transfer of tissue had been made not alone to the small intestine but also into the large intestine and the stomach. The technique employed was that commonly used in the performance of anastomosis between the gall-bladder and the intestine by the suture method. In the second operation the abdomen was again opened, the cystic duct ligated and divided, and the gall-bladder severed from its attachment to the liver. The tissues of the fundus of the gall-bladder now firmly united to the intestine at the point of anastomosis, obtained an entirely satisfactory blood supply from the intestinal wall. The gall-bladder was cut down to a piece corresponding to about one third to one half of its original size. The open end of the gall-bladder was then inverted and closed by a double layer of silk sutures, so that, when the operation was completed, gall-bladder diverticulum was formed which communicated directly with the intestinal tract.

The author believes that changes in the gall-bladder after autoplastic transplantation into the gastro-intestinal tract should be regarded as tissue adaptation to new conditions of environment, of much the same order as the changes noted by Carrel and Guthrie which occurred in the wall of a vein when transplanted between the divided ends of an artery.

He finally concludes that autoplastic transplantation of the tissues of the gall-bladder into the gastro-intestinal tract is followed by definite histological changes as a result of adaptation of the transplanted tissue to new environment, that gall-bladder tissue transplanted into the gastro-intestinal tract undergoes hypertrophy of the mucosa with development of new lymphoid tissue. When transplanted into the stomach, the hypertrophy of gall-bladder mucosa may become especially marked, and be associated with active proliferation and degeneration of the transplanted cells with mucous production.

That the increase in lymphoid tissue developed in the gall-bladder transplanted to the surface of the intestinal tract, whereas considerable decrease of lymphoid tissue occurs in gall-bladder transplanted into the sterile peritoneal cavity, affords evidence that the development of lymphoid tissue is in response to bacterial environment and possibly to other chemical or mechanical causes injurious to the tissue.

That there is no experimental evidence that a metaplasia occurs in gall-bladder tissue in fistulous communication with the intestinal tract, such as has been described as taking place in the human gall-bladder under similar conditions.

GEORGE E. REILEY

Van Hengel: Clinical and Experimental Studies of Cholecystectomy (Klauschke ca prochlorodolisch studie over cholecystectomie) *Dit schrift* 1906, Utrecht, 9

By Zentralbl. f. d. ges. Chir. u. L. Grosskopf

Regarding the eventual formation of a new gall bladder the results described by different experimenters are decidedly contradictory. Consequently the author personally experimented upon 5 rabbits and fifteen dogs with the following results. Whenever part of the cyst duct was left intact after cholecystectomy a new gall bladder formed the size of which was dependent upon the length of the duct saved. A new gall bladder never formed in any case in which the cystic duct was extirpated flush up to the ductus hepaticus. In the latter cases the larger bile ducts were markedly dilated in contradistinction to the former. There never was found the least widening of the papilla of Vater or any effect upon the general health following cholecystectomy. In nine cases reported in the literature the author found normal dilatation of the large bile ducts with no impediment in the ductus choledochus. In these cases the gall bladder function had ceased for some time previous to the operation on account of tones contraction, obliteration of the lumen, and likewise.

The influence of diet and medication upon the flow of bile the author studied in patients having biliary fistulae. He observed the following. White of egg diet has the greatest influence in maximal effect occurring 3 hours after the meal hence earlier than most theories believe. A second maximum is reached on an average six hours after the meal. Carbohydrates have decidedly smaller and less regular influence. Oils (oil of sassafras) hardly had very regular influence. The curves of biliary flow these were very similar to those noted by Bruno. Cases having the gall bladder and the papilla of Vater intact. The author deduces from the permanent post-operative fact that the curves indicate the amount of bile secreted in the liver and not as assumed by Bruno the amount of bile secreted into the gut. That the latter action is dependent upon the action of the sphincter of Oddi is also proven by Bruno. Cholangitis had very little influence till smaller and the remedy of it seems not any influence upon the secretion of bile. (Vivipar) produced great increase of the secretion, beginning 3 hours, and reaching its maximum five hours after its administration. Feeding humanum had still more marked effect beginning as rule one hour after administration and attaining its maximum three hours later. After 6 to 8 hours excepting several remissions, no influence was discoverable. These latter experiments prove that the bile was not only reabsorbed by the intestines and again excreted by the liver, but also that it stimulated the secretory action of the hepatic cells. As an additional proof it was found that the total amount of bile secreted under the conditions just mentioned was equal or nearly

equal to the sum of the bile normally secreted plus the quantity excreted in the feces and the urine. He also showed that little was re-absorbed by the intestines.

The author had observed decided psychical influence upon the secretion. To study the relation existing between biliary secretion and its excretion into the intestinal canal and the function of the sphincter of Oddi in this process, the author experimented upon two dogs. He performed a cholecystectomy in both and divided excised the papilla of Vater and the sphincter in one. He learned from these cases that the sphincter of Oddi is of no great importance at least it does not as Bruno says, prevent the flow of bile into the gut during fasting. The author thinks it is very evident that the secreted bile is constantly discharged into the gut as well as into the gall bladder and that the latter by occasional contractions, empties itself. Microscopically it was demonstrated that the small biliary ducts were never dilated nor was there any discharge in the hepatic duct after cholecystectomy.

The newly formed gall bladders showed a normal gall bladder construction macroscopically and microscopically. They all had good cystic duct. The fundus in every case contained the ligature used to tie the cystic stump during operation. The canals of Luschka were absent in every case. *Illness.*

Outerbridge: Carcinoma of the Ampulla of Vater
Ann. Surg. Phila. 9 3, 1910, 45

By Surg. Gynec. & Obst.

In connection with the report of a case of a small carcinoma occurring at the ampulla of Vater in a 65-year-old woman, rising from the duodenal mucosa and causing enormous dilatation of the common and hepatic ducts, the author has made a analysis of cases from the literature of malignant tumor in this region. At least six different groups of cells have been described, points of origin for one or the other of these tumors, but owing to the close proximity of all the structures concerned it is usually very difficult to determine the exact point of origin of any given tumor. From the practical standpoint, however, this is of little moment as the symptoms produced have practically no relation to the histologic area of origin.

The most common symptom of tumor of the Vaterian region is jaundice but this may in rare instances be entirely absent, due to ulceration of the central portion of the growth, with consequent failure to cause obstruction to the biliary flow. The jaundice is usually constant and progressive but may be distinctly intermittent even when obstruction is due to tumor alone. Without the association of stone, pain is present in about half the cases, it is sometimes constant, but often colicky in nature probably due to spasmodic contractions of the gall bladder. Vomiting, fever, intestinal hemorrhage, and ascites are among the less frequently associated conditions. There is no pathognomonic symptom of tumor of the ampulla of Vater and the differential diagnosis from tone in the common duct stenosis

from scar formation, chronic interstitial pancreatitis, and carcinoma of the head of the pancreas may be at times exceedingly difficult.

Tumors of this region are of comparatively short duration, usually causing death within seven months, and often much shorter time (after the first appearance of symptoms) this result is probably due to cholemia, as it generally occurs before metastasis or extension of the tumor to adjacent structures has occurred. About twenty-two attempts at the radical extirpation of these tumors have been made usually by means of an incision in the anterior duodenal wall in few instances by resection of a segment of the duodenum. There were nine operative deaths of the thirteen patients who recovered, only five are known to be alive seven months or more after operation the longest period recorded being three and three-quarter years.

Wolff: The Possibility of Replacing the Choledoch by Implantation of the Processes Vermiformis. Über die Möglichkeit eines Choledochersatzes durch Einplanung des Processes Vermiformis. *Deutsche Zeitschr. f. Chir.* 9, 4. 1907, 447. By Zentralbl. f. d. ges. Chir. Grenzgeb.

On the basis of a case the history of which he describes in detail, and by communication of Lexer on the successful replacement of the urethra by means of the appendix, the author was led to study the question of substituting the processus vermiformis for choledochus such as largely destroyed. Plastic procedures from the gastrointestinal all but used in such cases are very complicated and an insufficiency of the sutures always threatened. Simpler are those operations in which rubber tube was inserted between the central and peripheral ends of the choledochus. This was either left unattended in the hope that it would be extruded into the intestine or it was led to the exterior by means of an oblique Witzel canal so that its manual removal was facilitated. Instead of the rubber tube the author attempted to implant the processus vermiformis between the stumps of the choledochus, thus having a tissue built similarly to that of the bile passages. The author made his experiments on dead bodies, because the anatomic relations in animals are not suitable in this respect. Since the urethra was successfully replaced by the appendix the latter could be implanted with equal success to replace the choledochus because the peritoneum has marked and rapid tendency to adhesions, which insure the healing of the transplant. Furthermore, one can lay parts of the omentum over the implanted appendix to make the success more certain. The author now describes his procedure on the cadaver.

The abdomen is opened by pararectal incision from the arch of the ribs to the umbilicus. Appendectomy follows. After resection of the choledochus to the extent of 4-6 cm. a sound is introduced into the peripheral stump of the choledochus to the duodenum and the anterior wall of the latter cut

down upon over the head of the sound. A latex catheter was pulled through in retrograde fashion so that its upper end extended to the hepaticus. A lateral opening is made in the catheter which comes to be one finger's breadth below the papilla in the duodenum in order to allow the bile to flow into the duodenum. If upon the appendix syringed out with salt solution was pulled over the catheter and sutured by button sutures with the peripheral end of the choledochus. Then the central end of the choledochus is sutured to the appendix. To reinforce the suture portions of omentum are laid over the operative site. The catheter was imbedded in a Witzel's oblique canal and led to the exterior by special opening in the abdominal wall. In case of operation in the living naturally drainage of the operative field must be instituted. The author was able to determine in the cadaver that fluid forced in drained off into the duodenum beneath the injections were made into the gall-bladder or the large intrahepatic ducts. The suture was always closed. Operation on the cadaver lasted one hour. If the peripheral end of the choledochus cannot be found or is buried in tumor masses, the author recommends oblique suture of the appendix in the duodenum, analogous to the implantation of the ureter into the bladder.

Uvrea LXX

Propping Regeneration of the Cystic Duct Following the Insertion of a Tube (Regenerierung des Choledochus nach Einlegen eines T-Rohres). Beitr. Klin. Chir. 9, 3. 1907, 300. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

After a cholecystectomy an inflammatory stricture of the supra-duodenum part of the cystic duct formed which led to the obliteration of the passages. In a second operation, the gall passages above and below the obliterating part were opened and the defect between them, a distance of about 4 centimeters, was bridged by the branches of a T rubber hose which was removed after three weeks. One week later the wound healed completely. After a few weeks icterus again developed which after two and one-half years forced a third operation to be undertaken in which the new formed cystic duct as found to be entirely patent and normal so that any one not knowing of the previous defect would not have been able to detect it. In the territory of the hepatic duct there was, however, a new stenosis which again was healed by the introduction of a T tube.

In second case T tube was used to heal a retro-duodenal defect in such manner that one branch of the T tube was introduced into the hepatic duct the other through Witzel's diagonal fistula into the duodenum. The patient died on the twelfth day from cholemic hemorrhage. At autopsy the T tube as found to be lying correctly and to be functioning. Propping regards the use of T tube in the supra-duodenal part as better than the use of a simple drain in the lower part of the cystic duct or the insertion of a drain to bridge over a defect of the cystic duct. The defect in the retro-duodenal

part can be treated by the author's method or by that of Wilm which consists in the introduction of drain the hope that it will later enter the intestine and thus be gotten rid of or that of Voelcker who introduces drain through the duct in the papilla but this forms due to the diagonal canal of the testis. The method of making bridge in cases where it is necessary when the union of the shortened end of the gall passages cannot be made with the intestine is entirely rational.

MOUNTAIN.

Knappe. Pancreatic Hemorrhage (Die Pancreas-hämorrhagie). *Deutsche Zeitschrift für Chirurgie*, 1907, 47, 15. Zs. für Chir. 1907, 47, 15. Göttingen.

The author's confirmation of Ricka's conducted some experiments upon rabbit to the study of acute pancreatic hemorrhage. He succeeded in observing the pancreas and the mesentery for hours in the living animal. The result of their investigation differed from those of other investigators. The experiment leads to the following conclusions: The pancreas is purple if the rabbit has a status hemorrhagicus and necrosis of fatty tissue. Dissection of the vessel does not occur nor does hemorrhage due to laceration. A direct injection of liquid into the pancreatic duct causes permeation of it into the surrounding tissues due to increased pressure. Conclusions from experiments of this nature cannot be landing. It is furthermore found that the salts of natural pancreatic juice have the same action upon the vascular system as artificial salt solutions of the same percentage. Both produce a vascular hemorrhage due to diapedesis. Irrigation of the mesentery with active solution of trypsin did not cause hemorrhage but laceration led to a vascular hemorrhage by diapedesis. Inactive solutions of trypsin also did not act upon the tissues neither did solution of sodium diarsenate or ferments. These experiments and those tried on rabbits showed that trypsin does not attack the cells of living blood vessels and uses only as long as the blood is in contact with diapedesis. Salt solutions of active and inactive pancreatic juices as well as some other excretions and secretions of the animal body gave similar results. Knappe is of the opinion that nervous irritation may furnish the cause of hemorrhage in man, the same as in man, excessive loss of blood and poisons. He considers the incarceration of gall stone in the papilla as belonging to this type of nervous irritation. He enumerates some cases of acute pancreatic hemorrhage following trauma simultaneously with cholelithiasis. Knappe concludes that the etiology of pancreatic hemorrhage is not uniform. The causes may be the organ itself or may be transmitted to the gland by the nerves. The point of attack of the nervous system, however, is different, as the vascular nervous system is affected. This attack in turn leads to hemorrhage and tissue necrosis.

NORDMANN.

Crohn. The Diagnosis of the Functional Activity of the Pancreatic Gland by Means of Ferment Analyses of the Duodenal Contents and of the Stools. *Am. J. Med. Sc.* 1907, 33, 331-343.

By Surg. Gyver & Oluf.

Until recent years the function of this organ was roughly judged by the occurrence of such a symptom as glycosuria or the appearance of bulky and fatty stool and the attempt to use the external secretion of the pancreas for diagnosis was confined to test of the stool and urine. More recently a method introduced by Baldyreff and elaborated by Volhard consisted in the introduction of a olive-oil test meal into the stomach and testing it for regurgitated pancreatic ferments.

Within the last few years, Linborn Hemmet and Gross have independently suggested introducing into the duodenum catheter soft rubber tube for collecting directly the pancreatic secretion.

The author's paper is founded upon the results obtained by analysis of duodenal and stool ferment in twenty-seven chosen cases. The method of obtaining the material is essentially that of Linborn using his duodenal pump which consists of vulcanized rubber catheter one meter long and of narrow bore at one end of which is attached small perforated capsule glass aspirating syringe being attached to the other end. This was swallowed up to 80 cm. at eight o'clock at night, deglutition being aided by the drinking of little water at twelve o'clock and eight o'clock.

At eight o'clock 8 ounces of milk are drunk for the purpose of washing the capsule to pass the pylorus. At nine o'clock the same amount of milk is again administered which serves the test meal. Ten and one-half hours later the contents of the duodenum are aspirated the catheter being withdrawn until the mark 80 cm. is opposite the incisor teeth. Here it is estimated that the capsule lies in the first part of the duodenum. The contents are separated for five minutes, the volume and character of the resultant fluid being noted. The fluid withdrawn is assumed to be duodenal contents when (1) the radiograph shows the tube in situ in the duodenum or (2) if upon slowly withdrawing the tube while aspirating distinct difference is noted between the contents obtained at the point marked 80 cm. and the contents withdrawn after the metal capsule is left suddenly to enter the larger cavity of the stomach.

With the capsule in the duodenum one obtains in the course of five minutes 10 to 40 cc. of golden yellow slightly acid or neutral rather thick fluid of more or less opalescent hue. The acidity in normal cases is 1 to 20 (acidity per cent).

Chemical methods having obtained the contents of the first part of the duodenum the presence and quantitative strength of the ferments is estimated. The fluid after dilution with twice as much distilled water is divided into two parts one being kept acid, the other being made slightly alkaline with one-tenth normal sodium hydroxide the first portion serving for mylase and lipase tests the other for protease.

The stool A 4 to 50 dilution of stool in slightly distilled water was used as a basis for the estimation. For amylase the Harkins modification of the Wohlgrenth method was used.

For lipase and protease the same as in the test with duodenal contents.

The author gives technical discussion of the tests considering (1) the method of obtaining the duodenal contents (2) the identity of the mycolytic ferment (3) the preservation of the mycolytic ferment (4) the preservation of the proteolytic ferment (5) the identity of the proteolytic ferments. A table showing results of the different tests made of the duodenal contents of normal persons shows that normal average of cc of duodenal juice hydrolyses 14 cc of a 1 per cent starch solution in one hour.

For lipase Normal average of duodenal contents requires 96 cc tenth normal NaOH after 24 hours.

For casum test Normal average duodenal contents in dilution of 1:666 digest cc of 10 per cent casum solution.

In the study of this table it is found that quantitative test of the strength of the pancreatic contents from the duodenum of normal man varies within wide limits. In all but one instance of three were found in an active state, the one being lipase. With these findings as a basis, the author made test in pathological cases, finding in series of 10 patients confirmed by operation, that the ferment in the duodenum was active excepting one case examined before operation—this showed the absence of amylase and lipase. At operation the head of the pancreas was infiltrated and swollen to a marked degree.

In case of cut pancreatitis the ferments were absent except a faint trace of lipase the stool giving the same results. In this case an abscess involved the body of the organ. Another case examined showed absence of the ferments which several weeks later returned. Autopsy showed massive carcinoma involving the duodenum and head of the pancreas. Here the ducts of the pancreas had evidently been occluded some time then for some unknown reason the obstruction had been partially relieved and excretion established.

From study of cases of diabetes mellitus the author concludes that in all probability the external secretion of the pancreas plays no rôle in the pathology of the disease. This, however, should not be interpreted to exclude chronic pancreatitis with changes in the islands of Langerhans as no idea of the internal secretion of the pancreas can be obtained by these analyses. In these experiments, the author holds that cretinism, even though present, is never of sufficient strength to interfere with these analyses. The author holds that these analyses are of value in diagnosing the potency of the pancreatic ducts but that more experience is necessary to determine their value in diagnosis of functional activity of the gland. H. A. Porta.

Deaver and Pfeiffer Pancreatic and Peripancreatic Lymphangitis. *J. Am. Surg. Ass.* 9:3, May. By Surg. Gynec. & Obst.

The authors believe that the pancreatic ducts have been given undue prominence as a path of infection to the pancreas. It seems more than probable that considerable proportion of the pancreatic swellings observed during the course of operation, particularly in connection with biliary disease, are the result of lymphatic infection transmitted from the gall bladder or in some cases the duodenum, and possibly others of the abdominal organs. Bartels and Franke have demonstrated lymphatic paths leading from the duodenum and gall bladder respectively, which are in intimate association with the surface of the pancreas and anastomose with the intrinsic vessels of the pancreas. Peripancreatic lymphangitis and lymphadenitis are seen to be very common in biliary disease. The pancreatic lymphatics are not collected into a single trunk which emerges at the hilum of the gland as is the case with most of the organs. The lymphatics of the pancreas emerge at various points, following the vascular supply. The lymphatics of the tail and body therefore constitute a separate system from those of the head. It is well known clinically that the head of the pancreas is the portion which is chiefly affected in connection with disease of the biliary tract. It is a fair inference that the condition which singles out the lymphatic distribution rather than the duct distribution is more likely to have been carried by the lymphatics. In gall-bladder disease the chain of infection can sometimes be shown, namely infected gall-bladder enlarged lymphatics at the neck of the gall-bladder and along the course of the gastro-hepatic omentum peripancreatic swelling and lymphadenitis and nodular swelling of the head of the pancreas. The condition when present in the pancreas may be spoken of as pancreatic lymphangitis in its early stages the edema is due to congestion, edema and absorbable cellular exudate these changes have not been recorded by pathologists because of the rarity of the material at the autopsy table and also because the post-mortem digestion of the pancreas renders such changes inconspicuous. When the source of infection is removed the pancreatic condition subsides in the same manner as lymphangitis elsewhere in the body. If not relieved, it seems probable that serious damage to the parenchyma with chronic interstitial changes may occur.

Mayo Surgery of the Pancreas. I. Injuries to the Pancreas in the Course of Operations on the Stomach. II. Injuries to the Pancreas in the Course of Operations on the Spleen. III. Resection of Half of the Pancreas for Tumor. *J. Am. Surg. Ass.* 9:3, May.

By Surg., Gynec. & Obst.

The pancreas is usually fixed in position though it may be more or less movable in the body and tail. It has no true capsule, but when irritated capsule

quickly forms from the peritoneum and those tissues derived from the peritoneum. Access to the pancreas for operative purposes is usually best obtained through the gastro-colic omentum draining the stomach and the transverse colon and
I. In three hundred and seventy-eight cases of clinical resection of the stomach for cancer there was

average mortality of seven per cent. There were eight per cent. which had pancreatic attachments resulting in injury to the pancreas, about increased mortality. In none of these operations however, as the main pancreatic duct is held usually by superficial vessels, as removed from the surface to point where the pancreas has adhered to the diseased stomach. The lower end of the duodenum as implanted in the cavitation in the pancreas, each with about leakage following.

Ukers of the posterior all of the stomach often perforated and become adherent to the pancreas, thus forming extra tissue that organ. Such ukers must be excised, and the pancreatic tissue leaving no remnant of lesion and portion of the gastro-hepatic or gastro-colic omentum mislabeled and fastened into the injured pancreas.

II. In the course of three splenectomies the tail of the pancreas which then loosely incorporated into the pedicle of the spleen, exposed three times. In one about 10 inches of the tail of the pancreas was attached to the removed spleen and the pancreatic duct was placed visible. He tied stump. The stump was covered by peritoneal tissue, drained, attached and dropped back in position. No drainage followed. The patient recovered. In the second case the tail of the pancreas was tied in the pedicle about an inch from the tip. The stump was allowed to drop back, this condition. The patient recovered. In the third case the spleen was of great size and the splenic artery thrombotic and during operative manipulations it necessary to place double ligature around the entire body of the pancreas about three inches from the tail including the splenic vessels, because the artery was tied close to it through. The pancreatic tissues are considerably rushed, the ligament as pulled to it. The hemorrhage was immediately controlled but to ensure greater safety second ligature as pulled one inch further to the right. The patient recovered.

III. Resection of the pancreas for tumor occurs but rarely. In one case the tail and body of the pancreas (4 1/2 inches in all) was removed for tumor. Patient recovered. Flaxer report collection of seventeen cases including one of his own. These with the one in the Mayo Clinic make eighteen cases in which there were ten recoveries and eight deaths.

Pratt and Murphy Pancreatic Transplantations
1. The Spleen. J. E. P. M. 3, 1914, 3.

By Surg. C. McC. & Obit.

Pratt and Murphy transplanted lot of pancreatic tissue into the spleen in order to study the outcome

of the transplanted tissue and the effect of these transplants in preventing the occurrence of glycosuria.

It is well known that total extirpation of the pancreas produces rapidly fatal diabetes, but that this is prevented if a piece of the tail of the pancreas is placed in the abdominal wall and its blood supply carefully preserved. It has been maintained, however, that this experiment does not disprove the eugenic hypothesis.

It was found by the authors that pancreatic transplants to the spleen underwent rapid autolysis. In 5 of the 9 animals examined 8 hours to 3 1/2 days

after transplantation no pancreatic tissue was found. In one dog clots were found 3 days after transplantation. In the other 3 animals in which pancreatic tissue was found the animals lived 8 hours to 8 days after operation. One experiment as performed in which the blood vessels of the transplanted portion were left intact at the time and tied off 4 days later. This dog lived 87 days after this was done. N. Island of Langerhans are found in the nodule of pancreatic tissue remaining. The dog did not develop a permanent glycosuria, but the sugar tolerance as much lowered.

J. W. F. CANNELL.

MISCELLANEOUS

Clinical Relation Between Blood Pressure and the Prognosis in Abdominal Operations. T. M. Green. *Ann. Surg.* 1914, 59, 31.

By Surg. G. M. & Obit.

The relation between the blood pressure and the prognosis in abdominal operations is a well known extremes viz. a extremely low blood pressure and a extremely high blood pressure. Provided the heart is normal, can now control the low pressure phase by transfusion of blood, by mechanical means or by saline solution. The high blood pressure is far more difficult to control because it is difficult to control the factors that produce this condition. If there is cardiovascular disease due to infection or to toxic influences may have little effect though there is type of cardiovascular disease that is controlled by nitroglycerine. It is not best to reduce the blood pressure by bleeding and aside from nitroglycerine and hyaline measures there are no other remedies. Whether the blood pressure be abnormally high or abnormally low the patient is more likely to have complications—such as thromboses, emboli, pneumonia, nephritis—indeed the abnormal blood pressure plays into the hands of the usual dangers and complications of abdominal operations.

Could the operation be so performed that the nervous system could remain injured the blood pressure unaltered, the maximum degree of safety could be reached. The author found this could be done on the principle of non-association.

SURGERY OF THE EXTREMITIES

DISEASES OF THE BONES, JOINTS, ETC.

Wetherill. The Growth, the Death, and the Regeneration of Bone. *J Am Med Ass* 9 3, 1903.
By Surg. Gynec. & Obst.

The purpose of this article is to discuss the views of leading pathologists and surgeons as to the function of the periosteum in health and disease with especial reference to its power to reproduce bone. The author quotes extensively from McEwen's book in which he attempts to prove by animal experiments that the periosteum has no osteogenetic function but acts merely as a limiting membrane to the osteoblasts, thus preventing their overgrowth into the soft tissues.

The successful implantation of bone denuded of periosteum and the osseous proliferation and cell ingrowth circumferentially of grafts en masse or from bone chips or shavings are advanced as argument against the osteogenetic power of the periosteum.

The author quotes McEwen to the effect that small grafts placed in a gap in the continuity of bone show active proliferation from the bone circumference, each piece becoming a ossifying center from which sufficient osseous tissue is thrown out to fill in the gap between the various fragments and ultimately to grow together along with the ends of the divided shaft.

Personal cases of the author are cited demonstrating the limiting function of the epiphyseal cartilage in preventing infection from the diaphysis from reaching the epiphyseal ends of the bones.

As bearing upon his clinical observations the author quotes Murphy as saying that (1) periosteum fully detached from bone and transplanted into muscle or fatty tissue may produce bone (2) periosteal strips elevated at one end and attached to the other (3) turned out into muscle or fat produce bone on their under surface for greater portion of their entire length (4) bone with or without periosteum transplanted in the same individual and contacted with other living osteogenic bone (5) one or both ends of a bone becomes united if asepsis has been maintained and acts as a scaffold for the production of new bone of the same size and shape. The transplanted fragment is ultimately absorbed. The graft per se is not osteogenic but osteoconductive.

Contrary to Murphy's results, MacEwen also failed to grow bone from the detached periosteum and invariably succeeded in producing new bone from transplanted en masse or from shavings, the more abundant proliferation of bone also coming from the multiple small grafts. FRANKLIN DYER.

Wilson and Rosenberger. The Relation of Trauma to Bone Tuberculosis. *T Am Orthop Soc* 9 3, May. By Surg., Gynec. & Obst.

Wilson and Rosenberger critically analyze the clinical and histological aspects of the relation of

trauma to bone tuberculosis. Animal experiments and clinical experience together with a review of the literature fail to reveal any logical connection between trauma and bone tuberculosis.

Histological studies are convincing that the progress of inflammation is antagonistic to tuberculosis, thus confirming the clinical observation that tuberculosis never accompanies, except in fractures, sprains, or other severe injuries. It is purely theoretical to look for slight injuries, like bruises and contusions, because there can be no sound basis for their consideration.

The animal experiments of many investigators have clearly proved that infection has produced tuberculosis where no trauma was used and frequently demonstrated that the injured joints are less frequently involved in tuberculosis than the uninjured joints. Clinical experience proves that trauma is often trumped by its occurrence often directed attention to previously existing tuberculosis.

Infection differs from tuberculosis in section and therefore whatever lowers the vitality of the patient and diminishes resistance becomes a potent factor in the retrograde progress of bone tuberculosis, and thus brings into conspicuous prominence a latent tuberculosis. Conversely, whatever produces active circulation greater power of resistance, increased recuperative ability will induce recovery from tuberculosis by the process of walling in.

It is impossible to determine upon any rational basis that trauma bears any relation to tuberculosis than a co-incidental condition.

Fraser. An Experimental Study of Bone and Joint Tuberculosis. *J Exp Med* 9 3, xvii 1902.
By Surg., Gynec. & Obst.

Fraser points out in his analysis of the experiments of Schuller, Muller, Krause, Benda, Lanne, Longue, Friedrich, Pietrkowski and Salva that contradiction prevails, and that it is difficult, experimentally to reproduce the usual clinical phenomenon of tuberculosis in bones and joints.

In regard to the etiology and pathology of bone and joint tuberculosis, he states that experiments were performed to find out first the route of infection, second the factors governing the localization of the lesion.

Ten animals were injected with dried bacilli from one to two milligrams, and six weeks later were examined. There was found disseminated tuberculosis. The bones and joints also showed no involvement although they were given careful examination. The other route was that of ingestion of food adulterated with tubercle bacilli, the animals living six weeks. They were then killed and after examination also showed general tuberculosis, the first source of infection being in the mesentery. The bones and joints were negative as before.

This research revealed that bone and joint tuberculosis is not apt to occur after generalized infection.

In regard to the factors which governed the localization of the lesion it was necessary to infect localized areas of bone. The tibia is usually selected. The tuberculosis material was injected into the medulla care being taken to prevent the tissues surrounding being infected. The human bacillus was employed. Fully developed guinea pigs and rabbits were used in the experiment. Seven guinea pigs were inoculated and lived from ten to sixty days. The examination of the infected bone showed that tuberculous osteomyelitis developed in four out of six cases. In the three negative cases the microscope failed to reveal either tuberculosis or if the cases there as healed tuberculous focus.

An experiment on rabbit as performed the rabbit being infected with the human bacillus and with the bovine bacillus. The rabbit infected with human bacilli showed the one slight pulmonary tuberculosis but no active tuberculosis in the bone. The other showed slight pulmonary tuberculosis and no tuberculosis of bones. The rabbit infected with bovine showed in the one no general tuberculosis but slight tuberculous osteomyelitis. The other showed the same findings.

From this was found that the human bacillus produced no osteomyelitis. The bovine bacillus causes slight lesion but never severe. The cellular action in the rabbits is so intense as to prevent general spread of the bovine type of bacillus.

Another test as made on rabbit with the human bacillus, and this time the epiphysis of the bone as shown as is seen clinically in tuberculosis of bones. The rabbit were used, the human bacilli injected through the medullary space into the epiphyseal region care being taken not to infect any adjoining structure. After about sixty to ninety days the animals were examined. There were no general or local infections to be found.

From these experiments can be seen the great difficulty of infecting the medulla of healthy bone with tuberculosis even in the guinea pig an animal very susceptible to the infection, there is seen an inclination to recover.

The rabbit naturally immune to the human bacillus has the ability to prevent the development of the infection. The bovine bacillus causes only very slight development of the disease. Clinically from this it would seem unlikely to have primary tuberculosis of cortex or medulla of bones.

To find the action of infection on joints, four rabbits were chosen, the left knee joint of each was infected. In two of the rabbits injection was made with the human bacilli. In the other two with bovine bacilli. Those infected with the human bacilli lived one hundred and twenty-eight and one hundred and thirty-eight days respectively. They were killed and examined. The test as negative as to general involvement while the joints showed chronic

or tuberculous synovitis. Those injected with the bovine bacilli lived forty-four days. In the one rabbit slight pulmonary tuberculosis was found, together with acute tuberculous synovitis of knee. The other showed the same findings.

From this experiment is seen the greater liability of joint rather than bone involvement due possibly to more loosened cell resistance in joints than in bones and also the greater intensity of the bovine bacillus. Clinically never is there such great amount of bacilli injected. Is done experimentally. I order to have gradual transmission of infection as seen clinically experiments were performed to that end.

Four rabbits were experimented upon human bacilli were injected into the mesenteric vein. Fifteen to fifty-one days elapsed. The post mortem examination showed involvement of liver, spleen, and peritoneum but in every instance the bones and joints were not involved.

The suggestion that bone tuberculosis is due to hematogenic infection as proved likely. It is found that after direct inoculation of the heart blood via of the left ventricle in six rabbits only one instance as there found local infection and that healed in tubercle and retrograde. All of the six cases showed, however marked pulmonary tuberculosis. Thus, it is apparent that, without any predisposing factor circulation containing tubercle bacilli is not apt to cause local bone or joint tuberculosis.

Again, an attempt was made to produce bone and joint tuberculosis by injecting tubercle bacilli into the main blood supplying the limb. In the experiment four rabbits were used. In every instance pulmonary tuberculosis was produced and in the cases, joints were involved — the left ankle joint and the metatarsophalangeal joint. A change in the bone surrounding the joint as secondary to the avascular tuberculosis.

It is possible to produce joint infection by inoculation of the main blood vessel with tubercle bacilli.

The preceding experiment leads to the inquiry whether the inoculation of the trilateral vessel carrying bacilli into the medulla will cause joint infection.

An experiment was made on two rabbits, the inoculation made into femoral artery. The main trunk of the femoral artery below the trilateral artery was ligated, permitting the inoculation to pass only through the trilateral artery into medulla. In the two rabbits tested no bone infection took place but pulmonary tuberculosis as present.

In conclusion it will be observed that it is impossible to assert that the results arrived at by experimentation correspond to those clinically seen in man, but the results of experiments will throw great light on the probable truth.

The points adduced from the research are: Direct infection of the medulla of the long bone is unlikely to lead to the development of tuberculous osteomyelitis.

2 Inoculation of the interior of a joint with tubercle bacilli readily causes tuberculous of the synovial membrane.

3 From such an infected joint the epiphysis or metaphysis of the bone becomes diseased.

4 Infection of the arterial blood does not result in the local development of tuberculous of the bones or joints.

5 Infection of the main artery supplying limb leads to the development of tuberculous disease of certain of the joints of that limb.

6 Direct infection of the nutrient artery does not result in tuberculous osteomyelitis of the bone.

June 11/14

Hammond Heliotherapy of Rickets as Adjunct to the Treatment of Bone Disease The Orthop Soc. 9/3/14 B. Surg. Gynec. & Obst.

The author shows the value of heliotherapy in the treatment of bone disease comparing results in three years in which it was not used. Distinction is made between heliotherapy in which the sun is exposed and that in which the patient's body is subjected to gradual tanning process. After the method of Rodier. This results in marked stimulation of the patient as a whole and also corresponds to improvement in the skin. The technique is as follows: In order to tan the skin without burning the body is exposed usually to the feet for three periods of five minutes each the first day. The next day the feet are exposed three times for ten minutes each and the legs for five minutes. I turn the thighs, abdomen, back and arms are exposed. The back of the body is exposed as well as the front. On each succeeding day the exposure of all parts treated is made five minutes longer. When the body has become uniformly tanned the daily exposure is increased to from three to seven hours. Comparing at intervals of all cases treated at the Crawford Allen Hospital during 1910 and 1911 show marked improvement in 1911 when heliotherapy was used for full season. (It was used for a few weeks in 1910.) 1910 the average weight gain was 1.5 lbs. 1911 the average gain was 3.5 per cent. 1912 7 per cent. Combined with outdoor life and sunbathing it is an important adjunct in the treatment of these cases.

Stocker Etiology and Therapy of Osteomalacia and Rachitis (Über die Aetologie und Therapie der Osteomalacie und Rachitis) Car. Bl. f. klin. u. exp. Med. 9/3/14, 57. B. Zentralbl. f. d. ges. Chir. Grenzgeb.

The author's theories assume that osteomalacia and rachitis are the results of the same pathological process — failure of calcification during the constant intimately connected opposition and resorption of newly formed osteoplastic tissue. The metabolism going on during bone formation is a function of the hormones, of which those originating

from the hypophysis, the thymus, the thyroid and the adrenals have stimulating action while those originating from the parathyroids have checking restraining influence. If this be true then it must be possible to induce softening of the bones by prolonged administration of parathyroid hormones in increasing strength. Of the different methods available for this experiment the author selected the one of transplanting parathyroid glands to the peritoneal tissues. After failures with rabbits the author transplanted ovaries in calf and testicles in male dog and noted the following results.

homoplastic transplantations of testicles and ovaries succeed by observing certain precautions they grow here transplanted the hormones of the sexual glands influence metabolism in such a way that bone changes occur corresponding to those in rachitis and osteomalacia the bones remaining soft and ossification processes are impeded. The deduction from these experiments is that bone changes in rachitis and osteomalacia must be results of hypersecretion of the parathyroid glands or of some part of those glands. The author tries to prove by 11 known examples that constant high tension relation hip joint between glands having internal secretions so that predominant of one group tends to overcome the antagonistic group of the other. The individual glands of one group are not influenced with equal force though physiological law are not yet known. The glands of the calf experimented with are trophic. For therapeutic purposes no definite rules can yet be formulated, though it is believed that hormone-deficient be removed surgically by removal of the element lacking. Cures were effected by extract of the supra glandular of the hypophysis and thyroid glands. In selecting the separate remedial extract as yet the appropriate type. The same conditions bear the treatment with the milk or serum of castrated animals except that the latter are more difficult to procure than the glandular extract.

Sturtevant

Almy Osteomyelitis of the Tibia; Transplantation of Ten Inch Segment of Bone from Opposite Tibia. Surgical Case of John B. Murphy 9/3/14 By Surg. Gynec. & Obst.

The patient, young woman, 16 years old, red thin, inner side of left leg by mumps. She has operated several times and the greater part of tibia removed. On admission there was an old discharging wound just above the knee and inability to bear weight on leg.

The transplant was the longest Murphy has ever used. The incision was made along the old scar down to the ends of both the upper and lower fragments. A socket was made in the medullary canal in the upper fragment by the reamer and smaller one in internal malleolus. A piece of bone, 10 inches by 1 1/2 by 1/4 inches was removed from the crest of the other tibia and inserted in these fragments. A small wire nail bore held the transplant. The

development was entirely independent of the primary growth of ten years previously. This was also the opinion of Welch and Ewing who thought that the sarcomatous tumor might possibly be regarded as a re-lighting of the old bone sarcoma of ten years ago some of the cells of the former tumor having remained latent during this long period. Ewing was unwilling to express definite opinion without comparing the histological structure of the later tumor with the earlier. But even with such an interpretation, i. e. that the late tumor was a recrudescence of the earlier growth, Welch stated that the efficacy of the treatment by your method was strikingly manifested by the history of the case and so it seems to me to have brought about the disappearance of the tumor and to have kept the growth in check for ten years, and then to have the same (presumably) type of growth reappear in the original site—and this markedly malignant type of sarcoma—is a unique chain of events which is perhaps more convincing than the disappearance of tumor without a later return.

Coley stated that as far as he knew there was only one other case in which two types of malignant tumors (sarcoma and carcinoma) had occurred following X-ray exposure in which the diagnosis was proven by histological examination, but that he knew of no other case in which the tumor had developed such a long period after the exposure.

Marshall A Collection of Facts, Ideas, and Theories Relating to the Disease Element that Contribute to Success in Treatment of Joint Diseases. *Boston M. & S. J.* 93 divisions, 365. By Serg. Gyner & Ober.

The author believes definite relationships exist between visceral ptosis and arthritis, and as with tuberculous gonorrhea and pyogenic infections which are accompanied only in comparatively small percentage of cases with joint involvements so also with visceral ptosis, articular changes are not always observed.

The primary causes of pathological changes in joints brought on by visceral sittings are to be found in bacterial decompositions within the stomach, intestines. Intestinal bacterial products accumulate in the circulating blood from excessive absorptions from the lumen of the digestive canal, or through defective eliminations by the kidneys, or from defective transformations and destructions by tissues of the body or as the result of these combined influences.

When quantities of bacterial substances in circulation increase beyond certain limits, there are slowly developing pathological changes induced in the body tissues. The changes vary according to relatively variable resistances of different persons, tissues, and are observed typically as periarthritic swellings, synovial effusions, anemias, enlargement of lymph nodes, losses of muscular tone, etc.

The muscular, alba and connective tissue supports of the stomach and intestines probably are acted

upon also by these same circulating bacterial products with slight resultant deteriorations. The mechanical influence of distentions and weight of food accumulations together with the harmful vascular influence produce anatomical abnormalities and sittings.

Visceral ptosis may have other signs for example ptosis following pregnancies and after abdominal operations, etc. It may be present in extreme degree without arthritis and without signs of intestinal toxemia at times when physiologic functions of the stomach and intestines remain normal in spite of abnormal anatomic relations. Anatomic irregularities, however predispose to functional ones, and sooner or later toxemias are likely to develop. Then the small proportion of persons with non-resistant joints show articular changes. Ptosis should be considered a predisposing factor in the development of these cases of arthritis, and the primary cause recognized in the bacterial products which may produce both lesions of the joints and sittings of the viscera.

Ordinary harmless products from bacteria constantly present in the alimentary tract are sufficient to account for symptoms and changes observed, their injurious influence being due to excessive amounts in circulation rather than their unusual toxic natures. All normal products of tissue metabolism presumably produce harmful symptoms when retained by the organism in too great proportions, as in uremia, etc. Harmless intestinal bacterial substances probably are not harmless in all proportions. No single element in the circulating blood can be decreased or increased indefinitely without upsetting healthy vascular proportions and normal functions of the tissues. Emphasis is laid upon quantitative abnormalities among normal vascular constituents as causes of obscure pathological changes in contrast to the more easily remembered active toxins of certain pathogenic bacteria and other introduced poisons.

Gout is compared with mild intestinal toxemia—it represents the effect of excessive quantities of circulating urates, normal products of tissue metabolism, upon joints, kidneys, alimentary tract, nervous system, etc. Like mild intestinal toxemias show analogous effects of normal products from ordinarily harmless bacterial growths in the intestine when these substances are present in the blood in irritating amounts.

The condition of the blood cannot be told from the degree of intestinal fermentations and putrefactions alone nor from the quantities of intestinal bacterial products in the urine. It depends upon the ratio between absorption and eliminations, and not upon either one independently. Scanty quantities in the urine may be associated with excessive amounts in the circulation when the kidneys are weak and excessive quantities in the urine may exist with low concentrations in the blood when there are excessive intestinal absorptions and large portions of kidney simultaneously excreting rapidly.

A similar state of affairs holds with gout with regard to concentrations of urates in blood and urine.

Finally concentrations of circulation, which are of more importance than *extensive degrees alone* of intestinal putrefactions or of corresponding formations of urates do not themselves alone determine the development of tissue lesions. Development of pathological changes depends upon the ratio between the vitality of the tissues in question and the degree of irritation produced by circulating substances. When tissue vitality is low small proportions of irritants in the blood may cause pathological changes when vital resistances are high, large quantities of vascular irritants may produce no apparent effects.

Bier Th Treatment of Tuberculosis of the Joint
(Behandlung der Gelenktuberkulose) *Deutscher Chirurges* 93

B. Zentralbl. f. d. ges. Chir. (Grengeb.)

Bier demonstrates large number of patients, suffering from tuberculosis of the trochanteric joint in whom he was fortunate in obtaining excellent results maintaining the mobility of the joints affected. He does away with fixation of the part and uses his method of passive congestion, which is carried out for twelve hours daily energetic iodine therapy complement the mechanical measures. Children receive grains daily three grains. By the use of iodine internally he believes that cold abscesses which otherwise frequently occur during treatment by passive congestion are prevented. A series of fifty-seven cases, but of cold abscesses are recorded. In the presence of abscess he relies upon iodine for their resorption. KERNSTERN.

Coley Myositis Ossificans Traumatica. 4
Surg. 93 Iva, 305 By Surg. Gynec. & Obst.

Coley reports three cases of myositis ossificans traumatica and brings out the difficulties of diagnosis from sarcoma. The etiology of the condition is still doubtful but many theories are advanced.

This condition must be differentiated from contusion hematoma, myositis, perostitis, periarthritis, and syphilitic tumors but all these conditions can be differentiated by means of careful examination aided by good radiograph. It is sarcoma which gives rise to the greatest difficulties in diagnosis. In myositis ossificans the sharp outline, corresponding to the junction of the tumor with the bone is always shown in the X-ray while in sarcoma it is less distinct except in the very early stages of the disease. In myositis ossificans the consistency is much harder than in sarcoma furthermore, it is almost always uniform in character whereas in sarcoma it is very pitted soft in some places and harder in others, but there is never the bony hard area that is typical of myositis ossificans. Pain is rarely observed in the early stages of sarcoma but is quite marked as a rule in myositis ossificans. Joint disability is also more marked early in myositis

ossificans than in sarcoma. The absolute early diagnosis is so important that cases of doubt the author recommends exploratory section and microscopic examination of the specimen.

Treatment in these cases depends upon an absolute diagnosis, most writers recommending extirpation of the tumor at a variable length of time after its appearance. Massage and early incision and evacuation of blood are condemned by the author.

R. W. McNEAL

Murphy Chronic Trochanteric Bursitis. 5
Surg. Clin. of John B. Murphy, 93 N. Y.
By Surg. Gynec. & Obst.

A male aged 26 some fourteen years previous, as struck over right hip by a rock weighing 30 pounds falling on him. This caused severe pain leg, but he was not incapacitated. He suffered no inconvenience subsequently excepting that during changes of weather he had slight pain in the region of hip. In 1907 patient noticed small swelling over the right trochanteric region. This was freely movable soft and not painful or tender. It gradually increased in size and by 1909 was as large as a baseball. During these five years the patient lost 30 pounds in weight. The tumor was then excised. It was soft and had a fatty appearance. Patient then began to regain his weight, but three months after mass was excised a second mass appeared and patient immediately began to lose weight again. The mass steadily increased in size and four months later as large as hen egg. Last August (1909) plasters of zinc chloride were applied to the mass, and in two weeks it disappeared. The skin ruptured, and yellowish discharge followed. The discharge continued up to Oct 24th, when the femur was exposed and curetted. Yellowish discharge in small quantities appeared and continued to the present time. Dec. 9, 1909 patient following exposure to cold, had chill, followed by fever. The next day a pocket of pus was opened in the thigh, and the fever subsided. Patient does not complain of pain or tenderness, and has full motion in hip joint.

At operation the case proved to be a typical case of bursitis which had burrowed in all directions each side of it was carefully followed to its termination, and the surface of trochanter taken off down to normal bony tissue. Curettement does no good in such cases they require careful, clean-cut dissection. Small tubular drain, deep catgut sutures, tension sutures of silk, arm gut, horsehair for skin.

Cultures from pus before operation also of B. pyocyaneus, which accounted for the green color. The wound discharged green pus freely for two weeks, sometimes as much as a pint daily. The drain was then removed, and three weeks later the wound had closed completely and patient left hospital. He was given four or five injections of staphylococcus pyocyaneus vaccine and it cured his turning off faecal. The discharge ceased completely recovery. L. J. MINTON.

Henderson: Regeneration of the Tendons. *J. Surg. Gynec. & Obst.*
Lancet 93, xxx, 75 By Surg. Gynec. & Obst.

The experiment were done on the tendo Achillis of large dogs. Photos were also taken of the results on four dogs. In the first $\frac{1}{4}$ inches of the tendon was resected and the sheath left. Nothing was used to bridge the defect. The sheath was sewn together with catgut and the leg put up in plaster of Paris, the dog being allowed to run at will in the pen. The plaster was removed at the end of 30 days and there as found to be perfect anatomic restoration. A few days the dog used the leg normally. In the second case, both the tendon and the sheath were removed. Nothing was used to bridge the defect. The same after-care was carried out in all the cases. There was no anatomic restoration but the pseudo-tendon never functionated. In the third case, one and one half inches of tendon was removed and the sheath being left. The defect was bridged with 10 strands of black linen and the sheath sutured over the space with catgut. There was anatomic and functional restoration. In the fourth dog, there was removal of $\frac{1}{4}$ inches of tendon with the sheath. The defect was bridged with 10 strands of line. There was anatomic and functional restoration. In the fifth dog, pieces of linen was put through the tendon sheath and carried down to periosteal insertion in the heel. Centrifugal proliferation occurred about the linen showing microscopically many giant cells, the result of the chronic irritation produced by foreign body. Microscopic sections were made in all cases but macroscopic appearance is to be relied on more to distinguish true tendon.

FRACTURES AND DISLOCATIONS

Binn: Snapping Hip. *T. Am. Surg. Ass.* 93, May. B. Surg. Gynec. & Obst.

Case. Male 24 years, admitted to General Hospital, November 9. Four years ago right hip caught between two railroad cars causing a posterior crushing. He treated another hospital here he lay in bed five months no splints were used. The hip was useless almost year. After recovery he was capable of doing light work.

Afterwards he had two complaints: (1) A marked rubbing pain at the crest of right ilium when he carried heavy weight. This had no relation to the occurrence of his second complaint. (2) When he jumped or carried heavy weight there was an audible and palpable snapping at the right hip which he attributed to the head of the femur becoming dislocated and which he could produce voluntarily.

Examination. When the patient leaned slightly to the right side the tip of the eleventh rib touched the iliac crest causing a painful rubbing.

There was tenderness at this point. This position of bending toward the right was often assumed in endeavor to prevent snapping of the hip with its disagreeable sensation and feeling of weakness.

When sustaining most of his weight on the right foot knee extended, if the patient leaned toward his left, thick band of tissue could be felt pass from the lower and anterior part of the trochanter major upward and backward toward the iliac crest. On extending the hip this band would slide off the trochanter backward. If he twisted himself so that the right iliac bone moved forward the thickened band slipped forward on the trochanter with sharp snap which was palpable audible at several feet and the jerking movement of the band quite visible.

If the band was held backward with the fingers no snap occurred. The motions of the pelvis which have been described are equivalent to marked abduction and rotation outward of the thigh. In the recumbent position the phenomenon could not be produced. A ray examination was negative. Diagnosis. Snapping Hip. On November 20 ether anesthesia was administered. Longitudinal incision was made over the great trochanter and corresponded to a incision through the fascia lata. There was a sausage shaped thickening of the fascia posterior to the trochanter and the great trochanter (the fascio-gluteal tract of Heully). A flap of periosteum was raised by a longitudinal incision from the femur at the lower part of the trochanter major and the posterior lip of the raised fascia lata was sutured to this and to the vastus externus muscle near its origin. The anterior lip of the fascia was sutured to the posterior in such manner as to slightly overlap the original line of suture. The skin wound was closed and the limb fixed in splints.

The patient was seen month after operation. He was able to work. There was no recurrence of the snapping. The patient the right leg now feels longer than the left this of course being due to his ability to straighten the pelvis. The pain and rubbing at the crest of the pelvis has disappeared because the patient no longer bends over to the right, bringing his eleventh rib into contact with the iliac crest as he formerly did.

Case. Strongly built male aged 34 April 20 1903. About seven or eight years ago patient saw another boy creating interest by apparently voluntarily dislocating his hip and reducing it again with detectable snap. He admired the accomplishment so much that he successfully imitated it. There was no disability except that the snap was painful to occur in voluntarily when he lifted heavy weights. The phenomenon could be produced on both sides. The following is the sequence of events. Bears weight on foot, abducts thigh (or flexes pelvis to opposite side) slightly flexes knee and then hand moves from behind forward over the trochanter with a sudden jerk. B. reversing the motions of the hip the hand jumps back again to its retro-trochanteric position. The snap both when the hand moves forward and backward is visible, palpable, and slightly audible. The band is not the ilio-tibial band, but is evidently the anterior margin of the gluteus maximus. It follows an oblique line from

about an inch tensor of the posterior superior iliac spine down and anal from it to the outer sura of the femur 6 inches below the tip of the great trochanter. This is the location of the band just to ready it with a firm clasp. The band is about the thickness of a forefinger.

Perrin in 1930 reported a case of one of voluntary dislocation of the hip, but the discussion which followed it was about the symptoms resulting from the snapping of a band of fascia or muscle over the trochanter.

Barber operated on one hip after the diagnosis of subgluteal bursitis found no bursitis but laceration of the gluteal tendon. Out of forty-one cases collected from various sources sixteen appeared due to trauma on the fatigue and ten were either congenital or the result of practice. The rest of the cases the origin doubtful. The history was not secured or he put might all be malpractice (recruit trying to out military service etc.). In seven cases the injury was legere if dislocation of the hip no doubt in the rest there is doubt as to disability or no history. The fact that an operation which lacerates the anterior margin of the gluteus maximus near the trochanter and the external ismus of the femur preventing snapping seems also that the structure is the culprit. This notion is strengthened by Lerrain's observation that when he hooked up the fascio-gluteal tract with his finger nappi became impossible. Voelker's opinion of the upper fibres of the muscle gives good result probably because he obtained such great lengthening of the tract that no tension on the femoral insertion may permit retraction. The femoral insertion may permit retraction and not be lacerated and some of the muscle fibres might use sawtooth shaped a lifting of the muscle about the tensor margin and so increase the possibility of the peculiar jumping of this tissue over the trochanter when he proper movements are made.

SURGERY OF THE BONES, JOINTS, ETC.

Hogoraa Resection of the Leg; Method of Excising the Knee Joint when the Latter is Extensively Involved (Die Resektion der Kniegelenke mit dem neuen Verfahren in Längsform des Kniegelenkes bei unvollständiger Extremitätenamputation). *Arch. Zool.* 9, 3, 1931.

By Lerrain, I. d. g. (The).

This operation is indicated in cases of severe traumatic ankylosis, malignant tumors, etc., when the capsule of the joint is universally lacerated and the surrounding soft part are involved. The vasomotor nerve bundle however must be left intact.

The method of procedure is as follows. Make longitudinal incision through the middle of the popliteal space liberate and isolate the vessels and nerves. Make two circular incisions through the

soft part at the level of the tendons of the nerve bundle. The bones are then resected at union of the tendons brought about with the aid of aluminum bronze wire. The periosteum and muscles are sutured together with silk thread. The nerve bundle must be imbedded but not the muscle fibers; the shape of S. M. L. circular skin suture. The patient had occasion to operate this matter on the patient's leg from a bursitis of the hip. The required leg amputated. The one resection resulted in good function although with minor esthetic shortcomings. The other case suffered relapse and on month later it necessary to disarticulate the femur. The advantages of this operation are more than one. The operation gives the best result with healthy tissue. It is possible with this method to unite the cut surfaces and the bone fragment intimately and thereby are healing by first intention and firm bony union. The only disadvantage the marked shortening of the limb can hardly be considered since the only alternative of the operation consists of amputation above the knee.

Gall's Tendon Fixation. *J. Surg., Med.* 3, 1931, 47.

By Sant, G. and C. H. O'Neil.

The author describes original method for fixing the foot in corrected position in cases of paralytic talipes equinovarus or valgus. His first case boy of eight, had complete paralysis of both peroneals and weakness of the dorsiflexors. His result was talipes equinovarus. He first divided the tendon of the biceps, forcibly corrected and put on an ankle brace with stop-joint and T strap. The deformity recurred. Then did an arthrodesis at the astragalo-cuboid and calcaneo-cuboid joints. A kyphosis occurred but the deformity recurred. The ankle joint. Then he made an incision over the peroneal tendons, lifted the longus form and out of its groove and buried it in a groove on the anterior surface of the fibula with the tendon under tension, pulling the foot into valgus and dorsiflexion. The biceps was buried in a similar groove in the posterior surface of the external malleolus. Both were sutured with suture catgut and covered with peritoneum. The foot was put up in plaster Paris for nine weeks. Fixation as so secure that the foot could not be adducted and range of ordinary motion as normal dorsiflexion and half of plantar flexion. After allowing without brace for three months no tendency to recurrence.

Three other cases have since been operated upon. One of talipes valgus, one of valgus. In the last case the tibialis anterior and posterior are anchored to the tibia after division of the peroneals, and the patient was given Whitman flat foot plate when he began to walk. As only five months have elapsed since the first operation it is too soon for definite conclusions, but the author thinks if the tendons do not stretch, the operation has advantages over others and should be further investigated. J. L. Powers.

ORTHOPEDIC SURGERY

DISEASES AND DEFORMITIES OF THE SPINE

Lovett Th History of Scoliosis. *T Am Orthop Ass*, 9 3, May By Surg, Gynec & Obst.

The article deals with the salient points in the history of scoliosis from its earliest mention in the writings of Hippocrates. The mention of the affection of Hippocrates gave it its name but it was evident that it was confused with other affections of the spine, as also by Paré. Suspension in the treatment dates from the middle of the seventeenth century and the head sling from the end of that century. The affection was somewhat cleared up by André.

From the middle of the nineteenth century scoliosis attracted great attention, and vast amount as written about it. The modern progress appears to have begun with the application of plaster jackets in suspension by Sayre about 1875 and further progress was made by the use of high degrees of force by Wullstein in 1900. The result has been that treatment by forcible correction has come very much to the front the last ten years, and is in the opinion of the author the only effective treatment in dealing with the moderate and severe grades of scoliosis.

The latter part of the article is largely a consideration of the evolution of forcible correction.

Porter Scoliosis Its Prognosis. *T Am Orthop Ass*, 9 3, May By Surg, Gynec & Obst.

The author discusses the prognosis of scoliosis without reference to the various methods of treatment under its subheads.

The cause of the deformity. He believes that the underlying cause should be given as much weight as any other factor. Causes due to defects in development of the vertebrae and ribs offer the least hope of improvement. Those due to rachitis which have gone on to adolescence (those treatment those resulting from emphysema and paralysis offer bad prognosis as regards complete correction.

Cases due to static errors, such as unequal length of legs, unequal development of the pelvis, and bad habits in sitting in school have a better prognosis.

Cases due to torti collis, visual and nasal defects, levated scapulae etc. should be corrected when the cause is abolished, if the bones are not hard and fixed.

Cases due to unequal muscular development or strength are the most hopeful.

Age. Looney H says. Generally speaking the earlier the deformity develops, if it goes on for several years without treatment the worse the prognosis but here the deformity of young children is detected early and given prompt treatment should expect excellent and speed results.

3. Age of the patient. Next to the etiology this is the most important factor. The longer the period of growth the harder the treatment can

be carried out, the better. The greatest successes are usually found in patients between the ages of two and twenty. In patients past middle life a deformity which has not changed for many years may grow worse from trophic changes in the bones and joints.

4. Type of deformity. Simple total curves offer more hope than compound ones. The fewer the curves and the less the rotation the better the prognosis, provided they are below the cervico-dorsal region.

5. The patient. Personal factors, such as temperament, occupation, intelligence, general health etc. have very marked bearing upon prognosis. An alert, optimistic, interested patient will do better than a phlegmatic, depressed, and weak-willed one. Occupations which require constant exercise in abnormal positions, long persistence in normal one interfere with success of treatment. Obesity counts against successful treatment.

6. Incidental benefits of treatment. The improvement of the scoliosis almost invariably results in improvement of the general health.

The author cites several cases to illustrate the points referred to and also calls attention to the exceptions to the rule which are occasionally seen under almost all the conditions mentioned.

Little Some Recent Advances in the Treatment of Scoliosis. *Clin J*, 9 3, b, 300. By Surg, Gynec. & Obst.

After discussing briefly the anatomical and mechanical changes that take place in the spine in scoliosis, and referring to the various methods of treatment that have been in vogue since the seventeenth century Little describes the method advocated by Abbott in June, 1900. Since then he has treated several cases and he reports one, a case of 15 years of age with dorsal rotation of 3 degrees which was treated with four plaster of Paris jackets. The first was applied July 6, 1900, and the last moved on January 5, 1901, little over six months. The rotation was completely cured in the dorsal spine but a slight fullness remained in the left lumbar region.

As regards the value of this method compared with those previously in use he says: "I have now had enough experience of it to be able to say that it is at least in my opinion a very valuable innovation, and that I have already been able to achieve more definite improvement amounting sometimes to practical cure than with any other treatment which I have tried."

Whatever may be the final verdict of the profession as to the extent to which Abbott's method will cure severe scoliosis, there can I feel sure be little doubt but that he has made a considerable advance — an advance in my opinion greater than any other made in the treatment of

this deformity for many years, and one high doubts the credit of his powers of observation and his perspective. J. L. FORTER.

Forbes Th R Traction Treatment of Scoliosis.
T. Am Orthop Soc. 9: 34.
By Surg. Cases & Cl. L.

The article an arrangement of the present method of treatment of scoliosis in which the primary result is the dorsal spine. The aim of the method is to produce physiologic scoliosis the counterpart of the deformity by rotation of the spine through the ribs. If scoliosis is deformity of the thorax not deformity of the spine alone so rotation is the first of dorsal movement rotation is the best means of treatment. The author shows the lateral rotation of correction shows the position of the pinous processes posterior midline. Rotation is best secured by flexion brace suggested by Bradford and Lovett several years ago. For this permanent action not possible to also but only by physiotherapy in position and the application of Wolff's law. In paralytic scoliosis bone graft may be necessary to correct the rotation after or before. The exchange of the physiotherapy rotation is not discussed. Results obtained by the author Adams and others would not justify the rule of his method.

Freiberg Corrective Jacket in the Treatment of Structural Scoliosis with Especial Reference to Measurement and Record. T. Am Orthop Soc. 9: 34.
By Surg. Cases & Cl. L.

This paper represents an analysis of Abbott's method of casting structural scoliosis by means of plaster of Paris jacket on the basis of Freiberg's personal experience. A means of control estimating the results of treatment the author on the photographs record the graph record of the deviation of the spine from the perpendicular which has been drawn at the standard scale of 50 cm. The author holds that while the photograph is more on the right they and hide it gives the better general impression of the figure the graph record is more correct and more definite. The surgeon's Torsion deformity should be measured by unimpaired which expresses the deformity in degrees of the rule.

Six cases are reported illustrating different types of results from the Abbott method. Case I shows the possibility of reversing the deformity. Case II illustrates marked improvement much of which is produced by beginning about 15 mm compensation of dorsal curve and shows the method to be inadequate for very high dorsal curvatures. Case III is unsuccessful result in lumbo-dorsal curve dependent upon congenital asymmetry of the sacrum. Cases IV and V show how it is possible to produce marked over-correction of the patient's figure without improvement of the spinal deformity proper of corresponding

degree. Case VI demonstrates that post-traumatic osteosclerosis may offer insurmountable difficulty in accomplishing correction by this method.

The author's conclusions are as follows:
It is possible to secure reversal of the element of deformity in some of the cases of structural scoliosis by Abbott's method.

I quit a number of cases our means of correction cannot be exhausted in one jacket. It is probably better to remove the original jacket at the end of six weeks and then renew it.

Abbott's method of applying corrector jackets on the great degree and the correction is usually great that has been obtained by former methods.

The method is capable of substantial elaboration.

Bradford What to Do After Corrective Jacket is Discarded. T. Am Orthop Soc. 9: 34.
By Surg. Cases & Cl. L.

Correction of the deformity should be held in mind by those treating cases of fixed spinal curves.

The best method of correction is by properly applied plaster jacket. But correction of the curve

noting the patient and gymnastics are done at treatment but not to be relied upon absolutely. When relapse is threatened

Check braces are of assistance if they prevent slumping and faulty attitude. Such braces should be flexible and prevent slumping of the spinal column and the assumption of faulty attitude, and not be too tight or too complex, girders.

As there is tendency to relapse during growth inspection and treatment may be needed for a long period. Light, heavy disfiguring appliances should not be applied for an unduly long period.

The honest with himself the physician should, in using the most honest of surgical means, keep accurate records and measurements of contour flexibility curves and rotation to enable him to detect relapse definitely and not go positively

Cook A Introduction to the Symposium on Lateral Curvature. T. Am Orthop Soc. 9: 34.
By Surg. Cases & Cl. L.

The lumbar spine is the natural center of motion. Center of gravity and center of stress of the human body.

If the lumbar spine be normally curved to the left, the curve can be reversed and held. Cure is assured for by reversing the curve of the lumbar spine the balance of the whole body must of necessity be reversed, and the law of gravity and Wolff's law which formerly worked to increase the deformity will now work to correct the deformity.

Force can be brought to bear either directly or indirectly on the lumbar spine. An ordinary plank of Paris corner with large window cut out either side and ribbing bands from simple inexpensive and efficient apparatus for bringing direct pressure to bear on the lumbar spine.

Abbott: Movements or Positions of the Normal Spine and Their Relation to Lateral Curvature. *T. Am. Orthop. Ass.* 9, 3, 317.
By Surg. Gynec. & Obst.

The author states that the movements of the spine are many and are like those of a very flexible body. Although child spine is more flexible the same changes may occur in the adult. More limited degree of passive motion is more important as the muscles seldom produce curvature.

A division of the spine into segments is not as important as the relations of its parts in different positions. There are five primary motions: flexion, extension, side bending, rotation and torsion.

Flexion of the child produces a long curve. In the great test change in the lumbar region. Extension produces the least effect in the dorsal region which does not entirely lose its posterior convexity. Lateral bending is a pure movement. Rotation is a pure movement with the greatest change at the summit of the curve. Torsion is a pure movement with the greatest change at the ends.

Compound movements: Flexion plus side bending may exist without rotation. Flexion plus rotation or plus torsion may exist without lateral bending. Extension plus side bending is without rotation. Extension plus rotation produces the greatest change at the end tested. In side bending plus rotation rotation may occur toward either side. In side bending plus torsion the vertebrae turn either direction.

There are four complete movements in which the spine may easily be placed: (1) flexion plus lateral bending plus rotation; (2) flexion plus lateral bending plus torsion; (3) extension plus lateral bending plus torsion; (4) extension plus lateral bending plus torsion. In flexion plus side bending plus rotation, the vertebrae may be turned with little force either way but more readily in the backward than in the forward. When extension is substituted the motion is in the same direction but the force needed to produce them is much greater. When torsion is substituted for rotation either flexion or extension produce similar conditions. All these positions are possible but combinations containing flexion are the easiest. This is scoliosis.

It is easy to produce scoliosis artificially although it is a physiological posture which at first is assumed voluntarily but gradually becomes habitual and then lateral curvature is developed.

Harold A. Prosser.

Melsenbach: A Consideration of the Correction of the Fixed Types of Lateral Curvature Complicated by Visceral Derangements, Especially Those of the Cervical Variety with Slight Modification of Abbott's Method. *T. Am. Orthop. Ass.* 9, 3, May.

By Surg. Gynec. & Obst.

The author says there are many problems confronting the orthopedic surgeon to-day in regard to scoliosis, and much scepticism on the part of the

general practitioner in regard to the possibility of correction of this deformity. Among the things to be considered are the following: The selection of cases to be treated, the different methods to be employed in different cases, the pathologic condition of the patient before operating, the relation of curvature to disease in general, the results of correction upon the other organs and functions.

The author quotes Bakman, Thorndike and others to show that a large number of cases statistically show disease of heart, lungs, and other organs complicating scoliosis.

It is the conviction of the author that the fixed types, whether mild or severe, can be cured or improved and he has found that by careful consideration of the patient to be corrected with a modification of the treatment of the severer types, there is little discomfort or risk incurred by the application of the Abbott jacket. He has also found that the blood pressure is not appreciably changed by the application of the jacket and cites six cases which show that the pressure before, during, and after operation remained almost constant. He also gives three cases to illustrate the beneficial effects of correction upon the general condition of the patient. Each case requires quick decision each day. In one girl of ten years overcorrected seven days. In each case the general health was markedly improved, and one the haemoglobin jumped from fifty to seventy in few weeks.

The author emphasizes the following conclusions: The supraspinal small arteries in blood pressure when rotary force and flexion are applied disappear and improve treatment of pleurisy or gastric trouble after correction of the increase in haemoglobin without medication and the tendency of cardiac lesions to improve by correction. He agrees that in the severer cases where there is great deformity and derangement of the viscera, treatment should be undertaken cautiously and with view of improving the general condition of the patient also that, as a rule, no attempt should be made to build up the system by medication until after correction.

Park: A Report of Fourteen Cases of Spina Bifida and On of Sacroccygeal Tumors. *B. J. Surg.* 9, 3, 1914, 437. By Surg. Gynec. & Obst.

The author reports 14 cases of spina bifida, 3 of which were in very young children, the oldest not over 35 years, and one case in a young man, 3 years of age. All these cases were operated within the past ten years and represent the rather conventional method of extirpation of the sac with closure of the opening. In cases, very thin plate of celluloid or ivory was used as a riffrication over which the flaps were united. In the other instances more or less plastic work was done upon the vertebrae. Silver wire was used to close deep and buried retaining suture. Of the 14 cases, some quit suppurating, 3 died as immediate or remote result of operation, in the others apparently ideal results were attained.

Park also reports one case of congenital sacrococcygeal tumor the mass being larger than the infant head, in fact nearly the size of the entire trunk. So large was it as to constitute a very serious obstacle in delivery. On the fourth day a spontaneous hemorrhage near the conus terminated the patient and seemed to call for immediate operation. With scarcely any anesthetic the mass was dissected out with but little further loss of blood, excision being relatively easy although the growth extended within the pelvis between the rectum and the sacrum. It proved to be a multicystic teratoma. This little patient died a few hours after the operation.

In closing his report the author alludes to the possibility of utilizing living bone either from the same patient, e.g. rib, or from some other or possibly some animal source. Such fragment might be hoped to utilize the opening in the spinal canal and retained in situ by ordinary methods with every prospect of success.

Collins and Elsberg. Giant Tumors of the Conus and Cauda Equina. *J. Am. Med. Ass.* 9 3 May. By Surg. Gynec. & Obst.

The authors report five cases of giant tumor of the conus and cauda equina, operated upon by Elsberg. The tumors probably originated from the pia over the roots or from the roots of the cauda equina themselves; they grew very slowly causing few symptoms until they attained large size. Finally the tumors filled up the entire lower part of the spinal canal surrounding the roots of the cauda and extended upwards upon the conus and lumbosacral cord.

The important features of the clinical histories are the following: (1) history of one or more years of vague (2) pain in the small of the back, sooner later extending down the one and then the other to the extremity (3) stiffness of the back in the lumbar region (4) increasing stiffness and numbness of the lower extremities, with loss of power of dorsal flexion of the foot (5) slight disturbance of the bladder and rectum.

The important features of the examination are the following: (1) rigidity of the lumbar vertebral column (2) weakness and stiffness of the lower limbs (3) paralysis of the peroneal groups of muscles (4) drop foot, one or both sides (5) absence of knee and ankle jerks (6) tenderness of the lower lumbar spines (7) irregular and asymmetrical sensory disturbances (8) Wassermann and X-ray negative.

The typical findings at operation consisted of large reddish brown non-vascular tumor within the dura not intimately connected with the latter well encapsulated above and easily freed from the conus, but closely connected with the nerve roots below.

The peculiar features in the patients were the late appearance of bladder and rectal symptoms, the small evidence of sensory disturbance in spite of the fact that the large tumors were under much pressure within the canal.

The results of the operation interference were not very satisfactory although several of the patients were much improved. It is almost impossible to remove the growths without leaving small fragments of tumor tissue behind. The operations should be done in two stages so as to allow the tumors to be extruded from the spinal canal and then partially freed from the nerve roots. With early diagnosis radical removal should be possible.

MALFORMATIONS AND DEFORMITIES

Kunze. A Combination of Congenital Luxation of the Head of the Radius with Little Disease (Die Kombination der angeborenen Luxation des Radiusköpfchens mit der Little'schen Krankheit). *Zentralbl. f. Orthop. Chir.* 19 1, 1901, 38. By Zentralbl. f. d. ges. Gynec. u. Geburtsh. d. Grenzgeb.

Three cases are reported, where Little's disease occurred simultaneously with the dislocation of the head of the radius. The following possibilities are to be considered.

The dislocation of the head of the radius may be congenital.

The condition may have definite relation to Little's disease.

The history of the patient gives no evidence to support the first view. On the contrary it appears from the history, examination and X-ray that the condition was not present at birth.

The literature shows clearly that all nerve diseases which cause spastic and paralytic disturbances come in binomial traction of certain muscles. The latter do not only cause contractures, but also bone displacements and other deformities, even dislocations may be brought about in this manner.

It is true that the cases on record generally refer to the involvement of other joints, especially the hip joint. This, however, does not prevent the author from believing that the above named cases probably occurred as sequelae of Little's disease.

It has been suggested that these dislocations should be called spastic. This is, according to the author quite appropriate in fact he advocates that all dislocations occurring with spastic and paralytic disturbances should not be dismissed by calling them congenital, but should carefully be examined as to whether they can in any way be brought in relation to the dislocation forms described above. *EXAMINER.*

Willard. The Treatment of Flat Foot. *Proc. M. J.* 9 2, 1904, 437. By Surg. Gynec. & Obst.

One quarter of the deformities of the body are due to the weakness of the tarsal arch. The weight bearing portions of the foot are the heads of the metatarsals, the fifth metatarsal, cuboid and os calcis. The foot is held in position by the synergistic action of the tibials and peroneal muscles. Any weakness of the tibials or overaction of the peroneals will cause the foot to evert and throw the larger bare of weight-bearing on the plantar fascia. Thus gradual stretching and the normal outline disappears.

Weakness of the supporting muscles and venous of the foot are to be expected after prolonged weakening illnesses, injuries such as Pott's fracture etc. and treatment of the weakened arch should be begun before symptoms appear. The main indication for treatment in the early type are: Strengthen the weakened muscles, allow foot to take its normal position, relieve arch of strain, ut muscles take up their full work. To do this, muscular exercises and passive motions (massage) are of the greatest importance. The arch can be supported by a proper shoe which has a straight last, stiff shank and low broad heel with felt pad in instep when necessary. Steel arch support is injurious unless carefully made by an expert, and usually cause more pain, more pronation and further weaken the muscles.

JOHN L. PORTER

Osgood: The Prevention of Foot Strain. *Boston Medical Journal* 93, April, 1925

By Surg. Gynec. & Obst.

Osgood describes simple gymnastics of means, and the power of the foot muscles, and also that

comparison of the relative power of the adductors and abductors will often give warning of potential strain and pain, and disability in feet which present no symptoms. For five years the author and Arthur Legg independently examined various groups of medical students and others and their results were so uniform that Osgood believes that preventive treatment such as proper shoeing, exercises, douching, etc., based upon the muscle strength and walking position before actual trouble has begun will prevent its development in nearly all cases. He calls particular attention to the liability of painful feet among nurses and tabulates the result of series of whom examinations are made before symptoms developed, and the result of treatment in those who followed advice given and those who did not. He compares this table with that of 360 Wesley College students. The analysis of results as related to kind of shoes worn, previous occupation, and treatment shows distinct advantage routine examinations in institutions like schools and hospitals from standpoint of possible prophylaxis.

JOHN L. PORTER

SURGERY OF THE NERVOUS SYSTEM

Gordon: Experimental Study of Intraneural Injections of Alcohol. *The Journal of the American Medical Association* 93, May 1925

By Surg. Gynec. & Obst.

The object of this study was to determine experimentally the direct effect of alcohol on motor, sensory or mixed nerve. The series of dogs were used three for each. In the first series, the injection was made directly into the nerve substance after careful dissection and exposure of the nerve trunk. The supra-orbital, the facial and the sciatic nerves were then treated. The animals were kept alive nine days. Each nerve was then dissected up to its point of origin and the Gasserian ganglion (for the infra-orbital), spinal ganglion (for the sciatic nerve) also the facial nerve in its course through the medulla were all carefully examined histologically. In the second series of experiments the same nerves, some ganglia, also medulla (facial nerve) were examined microscopically after twenty-nine days of life. Besides, the clinical phenomena were carefully observed until the day of death.

Extraordinary accuracy in all experiments and uniformity with regard to the strength of alcohol (80 per cent) to the number of drops injected (5) and to the after-care of the wounds have been observed. The conclusions of the author are as follows: (1) There is difference in histological changes when alcohol is injected into motor, sensory, mixed nerve. (2) A motor nerve is considerably less influenced by the intimate contact with alcohol than sensory or mixed nerve. (3) Functional recovery follows in cases of injections into motor nerve. (4) In cases of sensory or mixed nerves, persistent sensory trophic and motor

disturbances follow injections of alcohol. (5) In cases of motor nerves, the gross nerve bundles are not affected. Only the perineural connective tissue suffers, but then condition of repair is evident in cases of long standing. (6) In cases of sensory or mixed nerves, the histological changes are very conspicuous, not only after recent injections (nine days) but also long after the first injections (twenty-nine days). Not only the nerve bundles but also their respective ganglia (Gasserian and spinal) show degenerative changes. (7) Therapeutic management of nerve sections: the above difference in the susceptibility of motor and sensory nerves must be borne in mind. Otherwise irreparable damage may be done to muscles and limbs.

Malou: Recognition of Members of the Somatomotor Chain of Nerve Cells by Means of Fundamental Type of Cell Structure and the Distribution of such Cells in Certain Regions of the Mammalian Brain. *Anatomical Record* 93, 1925

By Surg. Gynec. & Obst.

The article is based on the study of central nervous systems in the monkey, murine cat, and man. The material studied was fixed in 95 per cent alcohol and imbedded in paraffin. Serial sections were stained in 1 per cent aqueous solution of toluidine blue, differentiated in 95 per cent alcohol, cleared in xylol, and mounted in Canada balsam.

By the term 'somatomotor cell,' the author refers to those cells which form an integral part of the efferent nervous chain to striated muscle. The analogous, sympathetic, visceral motor cells concerned in the efferent system of the heart muscle

and smooth muscle were not studied. J. coburn is credited with emphasis that most cells have a definite histology toward the peripheral end of the efferent system but toward the central end-station there is transition to the sensory type. Malone believes that no such transition occurs.

There is no gradual transition in structure between the cells of the afferent and motor chains, and there is no indication of the beginning of motor structure in the afferent cells. Those cells in the efferent chain whose function consists exclusively or primarily in conducting impulses through the chain

cross striated muscle or between motor center characterized by common structure which differ according to the position of the cells in the motor series. The cells comprising the functional series may be recognized microscopically chiefly through the arrangement of the extracellular chromophilic substance relatively coarse granules.

This characteristic histological picture is best seen with relatively low magnification (100-200 diameters) and is found most characteristically in the central nervous system of those animals standing highest in the phylogenetic series.

The author believes that the definition of functional centers should be based more on localized cell groups having definite histological characters than on topographical relations. B. B. Brooks.

MacCallum Hyperexcitability of Nerves I.
Teil 1. Über die Übererregbarkeit der Nerven bei Tetanie. *Mitt. d. Chirurg. u. Med. Chir.* 9, 2, 1911, 94.

B. Zentralbl. f. d. ges. Chir. C. Graueh

MacCallum found by his experiment that in tetany the nerves remain hyperexcitable after section. This is not due to the fact that they are so before section, but to general causes. He demonstrated furthermore that the peripheral portion of a nerve separated from its ganglion cell shows in the development of tetany the same hyperexcitability as the cut nerve of the opposite side. Conduction of blood from a dog suffering from tetany through the extremity of a sound dog connected with the body only by the sciatic nerve, and the bone showed that this hyperexcitability is due to changes in the circulating blood. This may be due to the presence of toxins which become active by deprivation of calcium. E. A. S. Schmitt.

Dethmer and Fry The Radiotherapeutic Treatment of Tetania. *Arch. Surg.* 9, 2, 1911, 358.
By Surg. Gynec. & Obst.

Tetanic cases are reported in which X-rays were applied therapeutically for tetania which had resisted other methods of treatment. The reported results are good, pain usually decreasing after six or seven sittings, and cures resulting in several cases after a more prolonged irradiation.

A method was used which required relatively small divided doses. The rays were directed for

the most part to the zones of the lumbar region or even to points along the course of the nerve. Three irradiations are given to each region, an interval of a week or more elapsing between treatments. After the first series of three sittings the patient is allowed to rest for three weeks. At each sitting one third of a subcurative dose is given so that a cumulative dose of 5 H. is given on each region during a series of three sittings. An aluminum filter 5 mm. thick, was used with rays of penetration V 6 or 7 Benoist. The equivalent spark was 15 cm., and the focus distance 5 to 30 cm.

It was strongly contended that these cases are not of the pure neuropathic variety but that the tetania was due to real compression of the nerve roots. In such cases where the galvanic current and other methods have failed radiotherapy is advised. H. E. Porter.

Murphy End-Result of Operation for Brachial Paralysis. *Surg. and Gynec. and Obst.* 1911, 913.
By Surg. Gynec. & Obst.

A man of 30 on November 3, 1909, as he was about to revolve the barrel entering in the right axilla, he was thrown. Immediately after the arm dropped to the side and the shoulder fell. Admitted December 7th he was unable to raise the arm to right angle with the body or to fold the forearm on the arm. He had lost the ability to pronate and supinate or extend the hand. He was also incapable of extending the fingers, but could use all the flexor muscles. There are no sensory disturbances. It is evident, as the result of examination, that the bullet had passed through the lower portion of the brachial plexus. The ulnar portion of the eighth cervical was intact, and the suprascapular (functionating) The musculocutaneous as partially intact the greater portion as not. The median also partially intact. The ulnar was completely intact. The musculospiral was entirely out of commission. The plexus was exposed by making double division of the clavicle and reflecting the flap inward, and it was found the cut nerve-endings were close approximation, and, therefore the author believed that regeneration of the nerves would take place. He approximated the cut ends very carefully and ring them with fine catgut. Nothing else needed to be done. Sept. 27, 1910, he could use all the muscles except the long extensors of the fingers and thumb. Dec. 24, 1910, he had full and complete extension of fingers and thumb. All of his arm muscles were normally active. He had great strength and powerful grip.

This case establishes the definite principle that regeneration of axones can and will take place, with full restoration of function, if the approximation is done right. The divided ends must remain in contact till regeneration can take place. One must not be discouraged if the length of time before there is a return of function. In this case two years have gone by.

L. J. Mendenhall.

Sauvé and Tinel. The Operation of Franke (L'opération de Franke). *J de chir.*, 9 3, 5, 29.
By Surg. Gynec. & Obst.

The authors began their study of the operation of Franke, fully realizing that numerous reports of its non-success were due to its failure in reaching the pathological points which experimental and clinical anatomic observations have determined as the seat of tabetic crises. They justify their investigation of Franke's operation on the ground of its practical utility.

The first chapter of their article is a study of the clinical anatomic basis of the operation.

Of the three essential elements of tabetic crises, pain, vomiting and secretory disturbances, the most essential to be removed is the element of pain. In a comprehensive anatomical, physiological and pathological study the authors show that the splanchnic nerve supplies to the stomach () vaso-motor fibres which come from the cord and traverse the root ganglion without interruption () sensory nerve fibres whose origin is in the spinal ganglion and which enter the cord through the posterior root. It is in the course of this posterior root that the pathological process manifests itself. Thus the irritation acts simultaneously upon the intercostal nerves and the rami communicantes of the posterior roots the union of which forms the splanchnic. The pneumogastric is likewise composed of () few sensory fibres to the stomach intermingled with those to the heart, larynx, and pharynx, and () motor fibres the reflex irritation of which produces vomiting. Thus it is evident that as the pathological process is in the posterior root it is the posterior dorsal root which must be cut or its fibres destroyed in order to do away with the pain in tabetic crises.

The second chapter deals with the operation of Franke from the anatomical and experimental view points.

The question whether or not the operation of Franke removes the spinal ganglion has been investigated.

By searching for the ganglion in the divided nerve, which gives uncertain results owing to technical difficulties. By experiments on the cadaver, which are contradictory in results. Lenche and Cotte claim that the ganglion is removed. Skard and LeBlanc claim that it is never even injured unless the costo-transverse ligament be cut, in which case the dura is also dangerously torn by division of the nerve. Tinel and Sauvé agree with the latter. The findings to topography which show (a) that the operation of Franke anatomically never reaches the root and very seldom reaches the ganglion, yet (b) it is not anatomically useless because violent division of the nerve trunk causes profound disturbances in the nerve cells through temporary chromatolysis, and it is reasonable that lesions of the ganglion cells produced in similar manner may cause or hasten the complete degeneration of the posterior root. The authors believe that this

also explains the cures effected by the operation of Franke.

Most writers claim that the operation of Franke is simple and not dangerous. In the chapter devoted to the technique of the operation of Franke, the authors first consider the difficulties of the operation. These are, first, our insufficient knowledge of the anatomy of the posterior parts of the intercostal spaces, second, lack of precision in the number of nerves which should be divided. Physiologically from the fourth to the eleventh nerves should be divided, as the stomach derives its supply from the fourth to the tenth dorsal segments of the cord. But the authors do not quite dare to recommend division of the fourth on account of the danger to the cardiac and respiratory reflexes, third, the difficulty in following the nerve to its point of origin. The dura is seldom torn in practice, danger which LeBlanc and Skard have observed upon the cadaver also it is possible to go to the point of origin of the nerve. The authors technique, unlike any other makes it unnecessary to touch the costo-transverse ligaments, a good liberation of the transverse processes and an adroit manipulation of the grooved director sufficing and it is even less necessary to cut the transverse processes as recommended by Mouriquand and Cotte, fourth, the difficulty in avoiding the pleura. It is not true as contended, that injury to the pleura in this region is not serious.

The authors prefer to perform the operation at one sitting except () in very cachectic patients (b) when grave pneumothorax is produced () when there exists on one side chronic pulmonary lesions which render the lung of this side functionally insufficient in case of pneumothorax of the opposite side. The patient is placed face down upon the operating table with pillow under the abdomen.

The operation. The incision is made opposite to and three finger breadths from the fourth to the eleventh dorsal spines. The authors take as their landmarks a line drawn between the inner ends of the spinous processes of the scapulae as the level of the third dorsal spine and horizontal line four finger breadths below the angle of the scapulae as the level of the eleventh dorsal spine.

The second step comprises the incision of the soft parts down to the longissimus dorsi muscle. The inferior insertions of the trapezius and the latissimus dorsi are cut in the axis of the incision.

The third step is the avoidance of the posterior perforating vessels by going through the fibres of the longissimus dorsi muscle.

The fourth step lays bare the transverse processes and the levatores costarum. The separated fibres of the longissimus dorsi are strongly retracted and the fine tendons of insertion of the levatores costarum are grasped with toothed forceps and cut close to the transverse processes. The tendons are pulled aside and expose at once the posterior intercostal spaces. Now the external intercostal muscle and the

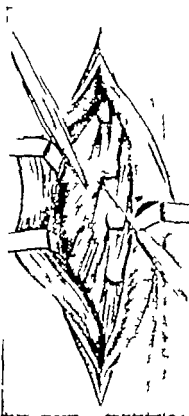


Fig. Showing method of exposing and lifting the tendons of insertion of the latissimus costarum muscle from the transverse processes.

external posterior intercostal membrane alone cover the intercostal vessels and nerve.

The fifth step comprises the incision of the external intercostal muscle and the external posterior intercostal membrane. The external intercostal is often lacking posteriorly and its fibres are best so that it may be neglected. The pleura lies immediately beneath the fibres of the external posterior intercostal membrane which is described for the first time by Sauré and Tinel. This membrane extends from the costo-transverse-cervical ligament internally upward and outward to the angle of the rib and has a length of about two and one half centimeters. External to the posterior angle of the rib the intercostal vessels and nerve lie between this membrane and the intercostal muscle. Internal to the posterior angle they lie between this membrane and the pleura (Fig. 3). In spite of all that has been written to the contrary the authors claim that nothing is easier than to injure the pleura in this region. They expose the membrane by inserting a blunt dissector (F. Raboult's) at the mid-point of the intertransverse ligament



Fig. 1. posterior external intercostal membrane; an. internal intercostal muscle; p. pleura. The external intercostal muscle has been completely removed.

and pushing it out and to the posterior angle of the rib. The resistant membrane upon which the dissector lies is the external posterior intercostal membrane which is exposed by cutting down upon the dissector and carefully raising the flaps (Fig. 4).

The sixth step is the exposure, section and division of the intercostal nerves. The nerve is now seen crossing diagonally the intercostal space. It is gently raised from the pleura and cut. Then the proximal cut end is grasped with a toothed forceps, and with a grooved director is separated from its bed in the intertransverse muscles and ligaments until its point of junction is reached (Fig. 5). The central end of the nerve is next caught as deeply as possible with strong forceps. The nerve is twisted by turning the forceps and is torn out as abruptly as possible (Fig. 6). Frauke and his followers recommend slow division of the nerve (at least three minutes for each nerve) but the authors believe that the desired result, namely chromatolysis of the ganglion cells is best obtained by brusque division, which has the added advantage of saving at least thirty minutes in time of operation.

The seventh step describes the repair and suture of the different planes. After repeating the preceding maneuver in each of the six intercostal spaces the muscular repair is easily accomplished with six or seven catgut sutures through the mass of the longissimus dorsi. The spongioporus is closed with a second row of catgut sutures and a third row of sutures closes the skin. The authors always drain the lower angle of the wound because of the known lowered resistance of tabetics to infection. If pneumothorax has been caused by opening the pleura in one of the intercostal spaces the opening is easily closed by suturing the large mass of groove muscle over this space.

The authors make a critical review of thirteen cases which they were able to collect in the literature, including their three cases. Two of these thirteen cases died from causes ascribable directly to the operation of the remaining eleven, two had

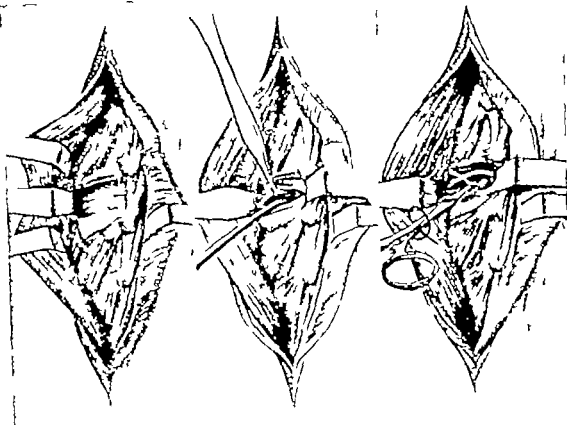


Fig. 3 Showing method of exposure of the posterior external intercostal membrane.

Fig. 4 Showing the lateral costal nerve lifted from its bed

and the grooved director following it to its point of origin.

Fig. 5 Forceps applied to nerve method of twisting employed in division indicated by arrow

immediate relapses, three had later relapses, five were cured but without any indication of the time elapsed since operation, one case has remained cured more than eleven months.

Comparing these results with results of other operations for the relief of tabetic crises, the authors were able to get reliable statistics only in the operation of Foerster. Their impressions are that the operation of Frank should have a mortality of about 7 per cent in spite of the 4 per cent of their collected cases. The reported cases of Foerster's operation give a mortality of 24 per cent, which the authors believe is too low because opening the subdural space alone gives a mortality considerably higher than these figures. From the point of view of efficacy the operation of Franke is incontestably inferior to that of Foerster. The former may succeed while the latter must succeed provided enough roots and ganglia are removed. The same holds true of all other operations which attack the posterior root or ganglion as the operations of

Gulek, of Sicard and Desmarest, of Schoeffler. But the operation of Franke is very much easier than that of Foerster, which in turn is easier than that of Gulek. The operation of Sicard and Desmarest ranks between that of Foerster and Gulek. In fact, after reviewing advantages and disadvantages of the operation of Franke, the authors conclude that it is the least efficacious of the operations for gastric crises but nevertheless can be successful; that it is the least dangerous and much the easiest. It should not be condemned and finds its indications.

The practical questions which arise in regard to the gastric crises of tabes and which Sourès and Tinel answer in their general conclusions are:

Is it necessary to operate for the gastric crises of tabes? The crises are a symptom of irritation and a well founded objection to operative interference is the fact that the crises disappear spontaneously when the progress of the disease destroys the roots or the disease becomes arrested and the irritation ceases. As it is impossible to predict when

these for both and non-operative results will talk place, the authors believe that the operation is justified where the crises are severe frequent long and leading to cachexia and after the lapse of some months show no tendency to spontaneous regression.

Which operation should be selected. If we accept the proposed pathogenesis of the crises as an irritative in the dorsal radicles the operation of Franke is not rational, since by the operation as set forth in this article the ramal communications and

the extremity of the ganglion are reached. Forster's operation the operation of Gubler and of Sicard and Desmarest are too dangerous to be recommended. Therefore the operation of Franke should first be tried. If it fail or if there are recidivations, Sauvé and Tinel recommend simple ligation of the dorsal radicles. This procedure seems to suffice to interrupt the efferent hick pain pathway to the cord from the spinal root across the irritated zone and causes definite degeneration of the posterior roots. ELIAS FORSTER.

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

Kornell. Free Fascia Transplantation; Experimental and Clinical Investigations (Über die freie Fascientransplantation experimentelle und klinische Untersuchungen). Dissertation, St. Petersburg 9.

By Zentralblatt für Chirurgie, Göteborg.

The author has undertaken fifty experiments on dogs and cats to illustrate the pathological and anatomical changes transplanted fascia. The experiments may be grouped in three series. Thirty three experiments are concerned with the substitution of Achilles tendon defects with fascia lata. Defects of the thorax wall were covered over twelve times and abdominal wall defects five times. In the first series the closing conditions can be described. The fascia muscle which connects the end of the resected Achilles tendon, the first serves very reliably for good union. Thereupon the tendon defect begins to be replaced by young connective tissue which proliferates round the transplanted fascia from all sides and supplies it with blood vessels. The surrounding connective tissue gradually acquires tendinous character and at the end of the second month is distinguished from the old tendon merely by its greater richness in cells and the irregular arrangement of its fibres. Macroscopically its glistening appearance is missing and it is thicker than the normal tissue. Gradually these differences disappear. The udder of the fascia lose their staining properties the first due to the insufficient nutrition. At the end of the third week already the number of udder is increased almost tenfold with the vascular new formations. Transverse fascia bundles disappear after three weeks, thanks to the inactivity while the longitudinal fibres become tendinous and at the end of the third month all differences have disappeared. The elastic fibres are always well preserved.

In a second series (eleven experiments) defects in the wall of the thorax were covered with free transplanted fascia. For this purpose large four-cornered defects were produced by means of rib-resection and removal of musculature and pleura and were closed in the way given. The author who has been the first to try such experiments, has tried in this series wherever possible to give results only after long

periods. The animals are killed after one month. As seven out of eleven dogs complete success was achieved. Two dogs died of shock. The artificial defect measured about 6.8 cm. From this series the author draws the following conclusions. Large thoracic wall defects can be closed splendidly with freely transplanted fascia lata. The transplanted fascia is surrounded on all sides by scar tissue which nourishes the transplant. The scar tissue gradually becomes flatter and firmer. If the pleura does not become infected no dehiscence of fascia takes place. The transplant covered on its inner side with flat pleural endothelial cells. Young connective tissue and vessels proliferate into the pre-fascial and endofascial layers, which lose their primary structure. The true fascic bundles, however, do not alter their structure even after one year. The proliferation of the elastic fibres reaches maximum in 3 to 4 months. After one year the number returns to normal.

In the third series, peritoneal-muscle defect of the anterior abdominal wall were covered with freely transplanted fascia thereby testing Kirschner's result (experiments). The author found that such a defect can be perfectly covered with free transplantation of fascia. Even in those cases with superficial wound infection, no bulging of the abdominal wall could be found after five months.

In the clinical part of the work there is at first a critical discussion of the eight cases found in the literature. Free fascia transplantation is employed most frequently in defects of the diaphragm (six times). Abdominal wall defects were closed fifteen times by this method and ankylosed joints were mobilized thirteen times. Defects of hollow organs were closed ten times, and three times the artificial intestinal stenosis of Bugoljuboff was attempted. The remainder of the cases comprise plastic operations on muscle etc. The author's personal material includes eighteen cases, among which are twelve cases of large inguinal hernias, five being recurrences. Further there was one case, respectively of hernia cruralis, hernia pulmonalis, pleural defect after stab wound, prolapsus recti (fascia ring of Brunen), cryptorchidism and ankylosis of the jaw. Noteworthy are the cases of closure of pleural

defect which succeeded splendidly. This method is applicable to all cases in which suture is not possible. It seems especially valuable after resection of tumors of the breast wall. In rectal prolapse also the fascia-plastic method of Brun is an excellent method. In cryptorchidism the author proposes the following procedure. The testicle is pulled through a 1/4 in. sized piece of fascia and the incision in the latter narrowed by suture. The scrotal sack is fixed in the scrotum. Most effective is the case of complete ankylosis of the joint according to Scharlach. By the interposition of free, transplanted fascia function is restored. This method technically is much simpler than the complicated muscle interposition according to Helfersch and von Mikulicz and is to be preferred for this reason. In the author's eighteen cases only one failure is to be recorded because of suppurative of scrotal hernia. Muscle hernia at the site of extirpation of the fascia were not observed. The author proposes free fascia transplantation as the method of choice in scrotal hernia because of the danger of recurrence. Hesse

Stern The Grafting of Preserved Amnion Membrane to Burned and Ulcerated Surfaces Substituting Skin Grafts. *J Am Med Ass* 9:3 17, 1913. By Surg. Gynec. & Obst.

The technique of fixing and preserving the grafts as suggested by the author by Carrel.

The freshly obtained amnion as in part or in entirety is immediately placed in petrolatum (after being washed of all blood in normal saline solution and dried between layers of sterile gauze). Liquid petrolatum serves well when specimen is to be cut many times and used up within a few weeks. The receptacles are stored on or near ice as soon as possible, and maintained at temperature between minus one and plus seven centigrade (30 and 44.6 F). The color and consistency remain normal for several weeks, the microscopical appearance of the amnion unchanged for seven to ten months.

Surfaces are prepared as carefully as for skin grafting. A section of the graft is spread smoothly care being taken to press it into bubbles. The amnion or glistening side is placed in apposition to the wound. Wax (mixture of paraffin beeswax, and castor oil) having been warmed to just the degree to liquify is now applied with applicators. A fresh applicator is used for each dip to prevent contaminating and disturbing the grafts. A outer dressing of cotton and bandage is all that is necessary for protection and absorption.

After two days, when the dressing is removed the outer layer of the amnion comes away with the wax, leaving the inner layer closely applied to the wound.

Cases of ulcers, burns and scalds and traumatic denudations are treated thus with remarkable result—best in case of traumatic denudation.

The method should commend itself if it does as well as skin graft for it obviates the necessity for

anesthesia and the production of secondary wound with no certainty of the outcome for their justification. H. W. KOSTER, M.D.

Strauss Copper in the Treatment of Cutaneous Tuberculosis (Zur Kupferbehandlung der kutanen Tuberkulose). *Deutsch. med. Wochenschr.* 9:3 1913, 503. By Zentralbl. f. d. ges. Chir. 1, Grenzgeb.

This article advocates the continuation of the hemotherapy of lupus. After the author had seen cases of marked improvement in cutaneous tuberculosis from the injection of copper preparations into the blood, he began to use it locally also with the object of getting results more quickly. He believes that copper preparations applied locally not only have a caustic action but that they exercise a specific effect on the tubercle bacilli. He believes that in the new copper compounds, especially in new combination of leucithin and copper and also in iodized methylene blue have means of successfully combating mild and moderately severe cases of tuberculosis as an infectious disease and that this can be done without injury to the individual which is not the case in the tuberculin treatment. Pictures are given of several cases cured of cutaneous tuberculosis. BR. VOEL.

MacKee and Remer Massive Dose X-ray Treatment of Cutaneous Epithelioma. *N. Y. Med J.* 9:1, 1913, 633. By Surg., Gynec. & Obst.

The advantages of single massive dose over small fractional doses of X-rays in treating epithelioma are (1) greater accuracy in measuring the dose (2) fewer visits to the patient (3) treatment (3) less total quantity of X-rays (4) better success in treating recurrences.

To obtain the same effect on an epithelioma by fractional doses as by massive doses, much larger total quantity of X-rays is required so that to produce the stage of erythema single massive dose has the efficiency of several divided doses whose combined intensity is considerably greater. At the same time the deleterious effects on the skin and its blood vessels is far greater with the fractional doses.

So if recurrences the resultant condition after fractional methods is very resistant to radiotherapy not so after massive exposure.

Accuracy in measuring the dosage is obtained for ray quantity by H. L. Lebeck radiometer and for ray quality by the Benoit scale. Benoit's scale is used for most superficial lesions with Benoit 7 or more for deeper growths, aided by suitable filter. The radiometer and penetrometer method gives a direct reading of quantity and quality on all types of X-ray equipment while the milliamperage-mil method is inconstant on account of the variance in milliamperage reading with different types of inductor.

The approximate dose is carefully estimated for each individual case and applied with all the accuracy that the measuring instruments afford. If the estimated dose is larger than is usually re-

quired to produce moderate erythema it should be administered in more than one séance remembering, however, that any two divided doses do not produce the same total effect of a single dose equal to their sum. If after massive treatment resulting in erythema no beneficial effect is seen in one month the case should pass to the surgeon. If improvement follow without prompt cure second and even third massive dose is justifiable.

H. L. E. POTTER

Mitchell Surgical Aspects of Purpura. *T. Am. Surg. Ass.* 9 J. May. By Surg. Gynec. & Obst.

Hæmorrhagic tendency deserves high place in consideration of factors for safety in surgical operations. Hæmophilia, jaundice, and purpura represent three types of pathologic hæmorrhage. Purpura is of greatest interest because of its many

variations, the possibility of confusion is diagnosed and its complications which may demand operative Henoch's purpura is the type with which we are concerned. Autopsy data do not offer complete explanation of the abdominal symptoms. Few cases are reported in which the diagnosis is questionable. A review of the recent literature shows that visceral complications may be serious and that intussusception is the most frequent and most serious lesion. There are reports of sixteen laparotomies, in eight of which intussusception was demonstrated and three intussusceptions were operated. There were no deaths from exploratory operation. The operative reports give a full explanation of the abdominal crises. The efficacy of the injections of serum has been well shown. Operation in the course of the disease as shown the results, is not greatly to be feared.

MISCELLANEOUS

CLINICAL ENTITIES -- TUMORS, ULCERS, ABSCESSES, ETC.

Robertson and Burnett The Influence of Lecithin and Cholesterol Upon the Growth of Tumors. *J. Exp. Med.* 9 J. Nov. 1914. By Surg. Gynec. & Obst.

The authors investigated the influence of injections of lecithin and cholesterol on the rate of growth of tumors in white rats. The growth used was the Flexner-Jobling carcinoma, inoculated into the axillary region. Rats from two sources were used and two specimens of tumor were obtained for the original inoculations. Injections were made directly into the tumor mass and were begun on the sixth and eighth days after inoculation in the two series.

It was found that cholesterol, whether suspended in dilute alcohol or in sodium oleate solution, produced a marked acceleration of both the primary and the metastatic growth and that the acceleration of the primary tumor was most marked in the pre-metastatic stage.

Lecithin, on the other hand, when injected in the form of an aqueous emulsion directly into the primary tumor diminished the tendency to form metastases, retarded the rate of the metastatic growth when it did occur and, in some instances, retarded the primary growth. The retardation was most marked in the metastatic stage.

It was also noted that simultaneous injection of 1% trontium chloride solution did not appreciably affect the action of the lecithin.

JAMES F. CHURCHILL

Flaherty and Loeb Transplantation of Tumors in Animals with Spontaneously Developed Tumors. *Tr. Am. Ass. Pathol. & Bacteriol.* 1915, May. By Surg. Gynec. & Obst.

The large majority of all experiments in transplantation of tumors were carried out on normal

animals. It is apparently tacitly assumed that the condition existing in normal animals or in animals with an inoculated tumor on the one hand and animals with spontaneous tumor on the other hand were identical. The first experiments in which tumors were transplanted into animals with spontaneous tumors was reported by Loeb about eleven years ago. Loeb found at that time that pieces of an adenoma of the mammary gland of a rat could be transplanted very much more easily into a rat in which a tumor originated than in other rats. Later Loeb and Leopold found a similar condition to prevail in a dog having a mixed tumor of the breast in which pieces of tumor could be easily inoculated while the tumor could not be transplanted into other animals. It was especially noted worthy in both the series of transplantations that the transplanted pieces remained alive in toto in the animal.

Which the tumor had existed spontaneously while in their individuals the whole transplanted piece or at least its center became necrotic. Loeb also reported later a few observations in mice which seemed to point to the conclusion that mice in which a tumor had originated spontaneously were not liable to form good soil for the growth of spontaneous tumors of other mice than normal mice without spontaneous tumors. The authors had, however, made only very few observations concerning this point and their conclusion in this respect was only a tentative one.

The results of their experiments carried out within the last two and one half years are sufficient definite to permit the conclusion that in mice with spontaneous tumors there is a factor present which permits tumors in general to grow better than in mice in which no spontaneous tumors had developed. There is, therefore, intimately connected with the development of spontaneous tumor in an animal a condition which favors tumor growth in general.

There is, however, another conclusion to be drawn from these results. Inasmuch as the percentage of cases in which tumors grew in the same individuals in which they originated is considerably greater than the percentage of growth in other individuals with spontaneous tumors, we must assume that the great facility with which tumors grow in the individual in which they developed spontaneously is due to two factors. First, the factor which the authors mentioned namely the presence of a condition favoring tumor growth in general in animals affected with a spontaneous tumor, and secondly a condition not specific for tumors but applying to other tissue as well, namely a condition which favors the growth of certain animal tissues in the individual in which the tissue originated as compared with the growth of the same tissues in other individuals of the same species. This latter fact is evidently due to a chemical adaptation existing between the physical-chemical character of the body fluids and the composition of the tissues.

Investigation of the growth of transplantable tumors, which are apparently less sensitive to the lack of this specific adaptation between tissue and body fluids than the large majority of ordinary tumors, shows that it grows in mice with spontaneous tumors not quite as well as in normal mice, especially if such an ordinary transplantable tumor is investigated under conditions in which its virulence has been experimentally decreased. Such material, however, grows better in mice with spontaneous tumors than in mice in which one of the ordinary rapidly proliferating transplantable tumors is growing. In all probability the spontaneous tumors call forth some immune reactions which are not present in normal mice, but they call forth immune reactions of less intensity than the rapidly growing, ordinary transplantable tumors. Furthermore, the fact has been established that those mechanisms which lead to an inhibition of growth in normal mice through an inoculation with surplus of tumor or through previous or simultaneous injection with spleen tissue are also operative in mice with spontaneous tumors and approximately to the same extent as in normal mice.

Warthin. Heredity with Reference to Carcinoma as Shown by the Study of the Cases Examined in the Pathological Laboratory of the University of Michigan During 1895-1913. *Tr. Am. Assoc. Physicians*, p. 13. May

By Surg., Gynec. & Obst.

This paper gives a statistical study of the records of the Pathological Laboratory of the University of Michigan during the years 1895-1913, in which period 3600 cases of neoplasm were studied for the purposes of practical diagnosis. Of these 3600 cases, 600 were cases of carcinoma. This material, in about 90 per cent of the cases observed, was taken from the general population of the state of Michigan. The University Hospital being a state hospital and not a charity one, gives a much more representative

population than is usually found in charity hospitals of the large cities, and the possibility of obtaining a family history is therefore much better than in the latter case. In about fifteen per cent of all the cases in which a family history could be obtained (1000 cases) definite family history of carcinoma was given. In a number of families at least six in number in which all of the members for three generations, both cancerous and non-cancerous, were included, a most striking family susceptibility to carcinoma was shown. In addition to these carcinomatous families, the author presents a study of carcinomatous fraternities that is, families in which a complete family history is not obtainable but in which for two or three generations of given family groups a distinct susceptibility to carcinoma is shown.

As the result of these studies, the author concludes that the study of a large number of cases of carcinoma yields isolated but striking examples of a marked family occurrence through several generations and a much more frequent family group or cancerous fraternity occurrence. From such histories it is hardly possible to draw any other conclusion than that a definite cancer susceptibility exists in certain families. The great frequency of association with tuberculosis might be taken as an evidence of a general weakened resistance on the part of these family lines and this conclusion is supported by the extinction of many of these lines through a lessened fertility.

In the study of all of our neoplasm material a family susceptibility is occasionally shown in the case of angioma, lymphangioma, fibroma, neurofibroma, lipoma, myofibroma of testis, adenoma of breast, and adenoma of thyroid but extremely rarely in the case of sarcoma.

1. A marked susceptibility to carcinoma exists in the case of certain family generations and family groups.

2. This susceptibility is frequently associated with a marked susceptibility to tuberculosis, and also with reduced fertility.

3. The multiple occurrence of carcinoma in a family generation practically always means its occurrence in a preceding generation.

4. The family tendency is usually more marked when carcinoma occurs in both maternal and paternal lines.

5. Family susceptibility to carcinoma is shown particularly in the case of carcinoma of the mouth, lip, breast, stomach, intestines and uterus.

6. In family showing the occurrence of carcinoma in several generations there is a decided tendency for the neoplasm to develop at an earlier age in the members of the youngest generations. In this case the neoplasm often shows an increased malignancy.

7. Because of the difficulty of obtaining complete family records the laws of inheritance of carcinoma susceptibility cannot be determined accurately and it is highly desirable that investiga-

tions of large family records should be made relative to the occurrence of carcinoma susceptibility. In Levin's study of cancerous fraternities in connection with the whole family history the percentage of the cancerous members of each cancerous fraternity corresponds very closely to the Mendelian percentage of members with recessive unit-characters in a hybrid generation. The same conclusion might be drawn from the author's cases in certain cancers but it does not seem to him that the facts are sufficient for such conclusions. Levin does not consider this conclusion final, and also concludes that resistance to cancer is a dominating character whose absence creates susceptibility to cancer. While some of the other cases show family history suggesting this, others could indicate a progressive degenerative inheritance the running-out of a family line through the gradual development of a tumor stock particularly as far as the resistance to tuberculosis and cancer is concerned.

Levin, as well as Williams noted the family tendency to specific localization of the cancer particularly the uterus in the female members. This is well shown in the other family histories and in some of the cancerous fraternities. Levin concludes that the most important result of his investigation is the fact that it shows the presence of an inherited resistance to cancer growth. Warthin could put it in just the opposite way and say that his observations are important in that they show in certain families inherited susceptibility to cancer. If the majority of the human race do not show this susceptibility resistance to cancer is a normal trait of the species. An increased susceptibility becomes, therefore, the abnormal character of importance and investigations should be carried along the line of attempting to determine just what lies back of this susceptibility.

Levin: The Mechanism of Metastatic Formation of Cancer. T. in *Am. Path. & Bacteriol.* 9:3. May. By Barg, Gyner & Ober.

The author describes a series of experiments with a inoculable sarcoma and carcinoma of the white rat in which the formation of metastasis was induced artificially. In a series of experiments the tumors were inoculated subcutaneously and then subsequently into an organ, liver or spleen. In those animals in which the tumors grew subcutaneously they also grew in the organ or in other organs the artificial production of metastasis was successful. When the subcutaneous inoculation failed, the subsequent inoculation into an organ was also a failure.

In a second series of experiment the subcutaneous inoculation was followed by simultaneous inoculations into the organs, liver and spleen. The results were identical with the first series inasmuch as the inoculations into the organs failed when the subcutaneous inoculations failed. But on the other hand, when the subcutaneous inoculation was successful then in a certain number of animals the

subsequent inoculation was successful in both organs while in other animals it succeeded only in one organ and failed in the others.

In the third series of experiments the subcutaneous tumors were removed surgically and then the same tumors were inoculated into one or two organs. In these experiments when the removal of the subcutaneous tumors was radical then the inoculation into the organs failed. When the subcutaneous tumors recurred, then the inoculation into the organs succeeded and again when multiple neoplasms inoculated into organs as done, then the tumors grew either in both or only in one organ.

The author concludes from the results of this experimental study that the growth of metastasis depends upon the same conditions, the growth of the original primary tumor and that they both depend upon an interaction between the malignancy of the cancer cells on one hand and the condition of general or local susceptibility or resistance against tumor growth of the organisms of the animal.

Heyde and Vogt: Studies on the Effect of Aseptic Surgical Tissue Necrosis and Researches on the Causes of Death from Burns (Studien über die Wirkung des aseptischen chirurgischen Gewebenekrosen und Versuche über die Ursachen des Versterbens an Verbrennungen). *Zentralbl. f. allg. exp. Med.* 1915, 1, 50. By Zentralbl. f. allg. Med. u. L. Gengenach.

This very complete work offers new and interesting viewpoints on the causes of death from burns and on the causes of death after unilateral nephrectomy. On the basis of numerous and varied experiments the authors concluded that burned animal tissue may resist foreign tissue in favor of the view that sufficiently large burns of the third degree may put the organism into a kind of permanent sequestration in the observation that experimental animals may be kept alive by excising the burned area. There is also the possibility of affecting animals who have not received a burn by the transplantation of burned flaps in just the same way as if they themselves had received a severe burn. Heyde and Vogt also succeeded in demonstrating in the urine of these transplantation animals the same toxic principle that occurs in the urine of the burned animals. In reference to this toxic principle the results show that a substance can be secured from the urine of burned and even of normal human beings which produces extremely characteristic phenomena in test animals with perfectly definite disease-complex, consisting of motor irritability, cramps, high grade dyspnoea, which are added the well-known symptoms of anaphylactic shock, such as haemorrhagic spitting, chewing and loss of urine and feces. Section of these animals in the acute stage shows hyperemia of the gastro-intestinal tract, haemorrhage of coagulation of the blood and leucopenia. In searching for the urinary toxin Heyde and Vogt succeeded in producing the typical picture of this intoxication in guinea-pig preparation. As the

chief results of their researches the authors designate the demonstration of well-defined chemical body of low constitution which can provoke the symptoms occurring in naphylactic shock and after the action of the toxic urinary principle in burns. They also demonstrated that the toxicity of such substance diminishes the higher it is constituted. Thus either fever producing or a toxic action could be obtained from the pure albumen. As a practical result of their researches the authors recommend wherever possible the excision of the burned area in burns of the third degree, the protection of the body from loss of water from the wound, the treatment of the patient with CaCl_2 solution and finally tropine in large doses. By applying the results of their animal experiments on the causes of death after unilateral nephrectomy to the experiences of human pathology Heyde and Vogt concluded by analogy that the uræmic coma occurring after kidney operations for a previously unilateral disease was frequently not of reflex, but of toxic nature.

LEUKÆMIA

Bloodgood: The Diagnosis and Treatment of Border Line Pathological Lesions. *T. Am. Surg. Ass., May 9, 3.* By Surg. Gynec. & Obst.

By border-line pathological lesions Bloodgood means those in which it is difficult, clinically or from the gross appearance, from the frozen microscopic section to come to a definite conclusion as to whether a lesion is benign or malignant.

The earlier after the first symptom patients present themselves for treatment the greater will be the number of these cases in which the diagnosis will present difficulties. In this stage the prognosis after proper treatment is best.

It is the author's opinion that there is sufficient experience at hand at the present time to allow one to formulate definite conclusions as to the proper method of diagnosis and treatment in this stage in which the result should be the best.

Incomplete removal of any malignant disease in its earliest stage gives much worse results than complete removal in later stage. This fact must be borne in mind.

Incomplete removal of distinctly benign lesions with the exception of the angioma, is always followed by the reformation of the tumor from the residues left behind and the chances of malignant change in these residues are greater than in the undisturbed benign lesion. This fact should also be kept in mind.

These border-line pathological lesions, from the standpoint of diagnosis and treatment can be divided into three great groups.

GROUP 1. In this instance the complete excision of the palpable nodule can be accomplished without danger and without mutilation so that after its removal it makes little difference what the microscope shows—the proper operation has been done.

GROUP 2. Here also the complete excision of the nodule can be accomplished without danger of mutilation but there is possibility that the lesion

may be a carcinoma of a type in which experience has demonstrated the neighboring lymphatics should also be radically extirpated.

GROUP 3. In this series the diagnosis of malignancy would indicate more radical operation with mutilation and in some instances increased dangers from the operation while if the lesion were still benign a cure could be accomplished with less or no mutilation and less danger.

From the author's investigations he is confident that there is sufficient evidence to indicate to the surgeon the proper operation in each group with best results for the patient.

In the first place the surgeon must have the easily available knowledge of the different pathological processes which may occur in definite localities. He must be familiar with the methods of the diagnosis of the lesion in this special region and the nature and extent of the operation which promises the best results.

The diagnosis as to the proper treatment rests upon, first a careful study of all the available clinical evidence. In some cases this is sufficient to indicate the proper treatment without a gross or microscopic investigation. The author thinks this is true for palpable masses in the stomach and colon. The resection of such masses without an investigation of their gross and microscopic pathology by cutting into them yields the best results with the least mutilation and danger. If the pathological examination after their removal shows a benign lesion, the patient is protected from the later development of cancer. If on the other hand it should prove to be malignant the chances of cure are best.

As examples of Group 3 may be mentioned benign pigmented moles, warts, small subepidermal nodules, and subcutaneous, more or less encapsulated tumors.

In the second group may be mentioned lesions on the lower lip. Here the lesion may be radically excised with a V-shaped piece without danger of mutilation the wound may be closed. Then a frozen section is made and if it proves to be carcinoma of the spinocellular type the gland under the jaw should be completely removed through a separate incision. This operation in two stages and without continuity dissection has been demonstrated to fulfill all the requirements. With an early lesion on the tongue the method is entirely different, because for the malignant nodule or ulcer the local operation must be more vital. In a case of this kind under general or local anesthesia, the palpable area is excised with the cautery and immediately studied under the microscope in frozen section. If the section shows carcinoma, then the more radical operation must be proceeded with at once.

As an example of Group 3, a lump in the breast may be used—one in which clinical diagnosis is impossible. The surgeon cut down upon the lump. In the majority of cases the differential diagnosis between benign and malignant is best indicated by the gross findings. In many instances the frozen sec-

tion is more difficult to interpret than the gross pathological picture. In a few instances the frozen section is helpful, for example, between an intra-canalicular myxoma and medullary carcinoma.

The next important question to answer is, what shall surgeons do when in doubt after he has examined clinically, and gross and microscopic pathological investigation? It is the author's opinion that we have sufficient evidence to answer this question. It rests upon the knowledge of the frequency of malignant disease in the different regions and the results of radical treatment. In the breast the complete operation for cancer should always be performed in any less than a woman or twenty-five unless the benignity of the lesion is established. The complete operation should follow immediately upon the exploratory incision. This conclusion is based upon the fact that the mutilation of the complete operation is but slight, the additional danger is little if any while the probabilities of cure when the malignant tumor is subjected to complete operation in this doubtful stage is eighty per cent more on the other hand when the operation is done in two stages the chances of cure are reduced to almost nothing.

In bone lesions the mutilation of amputation is so great and the chances of cure of any doubtful lesion (should it prove malignant) are so slight that the most conservative operation should always be chosen. This is also true for doubtful lesions in the nasopharynx and antrum, the alveolar border of the jaw, and in the body of the lower jaw.

Bloodgood feels confident that if surgeons will carefully investigate these lesions clinically scrutinize their gross appearances and look at the frozen sections and keep a check on their results up to date, they will soon be in a position to meet the requirements of the diagnosis of these border-line pathologic lesions, inasmuch as immediate treatment based upon this investigation will lead to removal of the lesion giving the patient the best opportunity of a cure with the least mutilation and danger.

SERA, VACCINES, AND FERMENTS

Leachik. Contribution to the Serum Diagnosis of Tumors (Beiträge zur serologischen Geschwulstdiagnostik). *Beitr. klin. u. exp. Patholog.* 1912, 1, 1-27.

By Zentralbl. f. d. ges. Hyg. u. Geburtsh. u. Gynäk.

The contribution consists of a report on extensive experiments to demonstrate complement fixation constituents in the serum of cancer patients. Washings of cancer cell emulsions, lactic acid solutions, methylalcohol extracts and antiformin solutions of carcinomata, these sarcoma of man and rats, pancreas of man and calves as well as spleen and liver were used as antigen. Of sixty-one tumor cases, in only six did the sera give negative reactions with each antigen. In 90 per cent the sera were positive with the various antigens. In a series of one hundred forty-three patients, sick with other diseases, only 7.5 per cent gave positive reaction. The best

results were obtained with the antiformin solutions 88.6 per cent positive reactions in tumor patients, and only 7.6 per cent in those sick with other diseases. Of the latter group 78.6 per cent gave positive Wassermann tests. The reactions are dependent upon the lipoids and it is a question of reaction between antilipoid substances and the lipoids of the antigen. Further tests with the cancer cell reactions of Freund and Kaminer resulted in positive reactions in 54.1 per cent of tumor patients (series of fourteen cases) 48 per cent of patients sick with other diseases (twenty-one cases) and in 10 per cent normal individuals (eight cases). The results are not uniformly convincing, but this should not excise the method since with refinement of the technique it may produce results of practical value.

VOY GRATE.

Well Nature of Anaphylaxis and Relations between Anaphylaxis and Immunity. *J. Med. Research*, 9, 3, April, 1907.

By Burg, Gynae. & Obst.

In spite of the striking difference between the manifestations of anaphylaxis and of immunity there are many facts which indicate that they are closely related phenomena. Thus, a guinea-pig, by virtue of single injection of an alien protein, becomes hypersensitive towards that protein, but, by frequent repetition of the same, becomes immune thereto. An immunized guinea-pig, on the other hand, possesses a serum which, when injected even in minute amounts into a normal guinea-pig, renders the latter highly hypersensitive to the specific antigen in question. The author discusses the two important theories in which attempt has been made to unify the phenomena of anaphylaxis and of immunity and to explain them upon a single basis. The first of these maintains that the anaphylactic reaction is intracellular, the second, which has now very largely displaced the former in the literature, maintains that the reaction is entirely humoral. The difference between these two conceptions is, as Wall states, fundamental, and the determination of the correct view is of first importance for the whole subject of immunity. He then considers each of these theories briefly, namely the cellular and the humoral.

It therefore seemed important to the author to verify experimentally the conception that the incubation period necessarily accompanies passive sensitization. An experiment was therefore planned in such manner that series of animals received a wide range of combinations of these two factors—antigen and antibody being given simultaneously. In another series the same combinations were employed, but the injections of antibody and of antigen were separated by a time interval. In the former case anaphylaxis failed to supervene. In the latter it invariably occurred. His study has been exhaustive and covers a very wide range. His experiments seem to demonstrate that immunized animals are also potentially anaphylactic. In the terms of

the theory herein supported their body cells contain scelle receptors, or anchored antibodies, in sufficient number to produce an anaphylactic reaction, but are protected by the free antibodies of the serum.

Summary of experiments It has been impossible to produce anaphylactic shock in guinea pigs by injecting antigen and antibody simultaneously. For sensitization to occur an interval of time must elapse between these two injections.

1. Qualitative changes have been shown to take place in the introduced immune bodies during this interval.

2. Quantitatively, it has been shown that there is a marked diminution in the circulating antibodies in the blood during this interval.

3. It has been shown that, in spite of the disappearance of the antibodies from the blood, they persist in the body as is shown by the persistence of the induced anaphylactic state.

4. By previously saturating the guinea-pig with normal rabbit serum it has been possible to prevent sensitization by means of immune rabbit serum.

5. Guinea-pigs that had been either actively or passively sensitized were protected against anaphylactic shock by introducing into their blood large amounts of immune body.

6. Guinea-pigs that had been immunized in the popular acceptance of that term, by the frequently repeated injection of antigen, are shown to be potentially anaphylactic.

CONCLUSIONS

Anaphylaxis is due to the reaction between specific antibodies present in the cells and the introduced antigen.

In passive sensitization, the body cells absorb the introduced antibodies from the blood, and the animal is thus made anaphylactic.

The function of immune bodies present in the serum is to neutralize the introduced antigen, and so to protect the body cells.

The anaphylactic animal regularly contains in his circulation an insufficient quantity of antibodies to protect his body cells.

The immunized animal is potentially anaphylactic. His body cells possess anchored immune bodies, but are protected by those in circulation.

Exactly the same antibodies are present in anaphylaxis as in immunity. In the former they predominate in the cells; in the latter in the serum.

GEORGE F. BILLET.

Robinson and Auer: Cardiac Disturbances in the Dog During Anaphylaxis. *T. Am. Phys. Soc.*, p. 3, May. By Surg., Gynec. & Obst.

Dogs sensitized by the subcutaneous injection of horse serum were examined at intervals (2-6 days) with the electrocardiograph. The animals were kept under light ether narcosis by intratracheal insufflation, the blood pressure read by means of a mercury manometer connected with the carotid artery and the electrical variation of the heart led

off from the right front and left hind leg. The toxic injection of horse serum was 20 cc. and was always injected into the jugular cannula.

Twelve dogs were used, and of these six gave outspoken changes in the electrocardiogram. Four of these showed a qualitative identity in the changes recorded: the R wave gradually diminished while the S and T waves increased greatly in size, the P-R interval was increased in all four cases. In one of these a partial heart block of varying degree developed which disappeared twenty nine minutes after the serum injection.

In the fifth dog partial heart block was obtained again, but this time without any such striking change in the general form of the complexes as have been described.

The location of the source of these disturbances is probably peripheral, in the heart itself because the changes were also obtained after section of the vagi in the neck.

The drop in blood pressure which is so characteristic of anaphylaxis in the dog (Biedl and Kraus) cannot be considered the cause of these cardiac disturbances because a number of the sensitized dogs examined showed a profound drop in blood pressure without any change practically in the form of the complexes. Moreover when the blood pressure was suddenly lowered by amyl nitrite, sodium nitrite or by section of the splanchnic nerves, the electrocardiograms again showed practically no alteration.

After the heart recovered from these anaphylactic changes the reinjection of the same dose of horse serum caused no change in the character of heart beat (anti-anaphylaxis).

The results demonstrated clearly that the heart of dogs may show profound temporary pathological alterations due to serum anaphylaxis. These results may possibly aid in explaining certain cardiac disturbances in the human subject.

BLOOD

Bond: The Mucous Channels and the Blood Stream as Alternative Routes of Infection. *Bull. M. J.*, p. 3, 1, 645. By Surg. Gynec. & Obst.

The article takes up the question as to whether the organisms which bring about infective diseases of the liver, kidney, gall-bladder, the urinary bladder, mammary, salivary glands, etc., reach their respective structures through the blood stream or by the mucous channels of these structures communicating with the body surface. Aside from the blood and lymph, three ways are open for a disease organism to gain entrance to a secreting gland: (1) The organism may be motile; (2) it may be passively transported by muscular or peristaltic action; (3) it may be spread over the surface of the mucous membrane by growth, as a diphtheria membrane. Bond says he has previously demonstrated that particles of indigo can be carried along mucous canals and gland ducts in a direction opposite to that

taken by the normal secretion. For this, certain conditions must be fulfilled: (1) There must be reversed mucous current along the channel; (2) there must be some stasis of the normal secretion or excretion in the duct; or (3) a fistulous communication must exist at the proximal end of the canal by which the contents can reach the surface of the body without passing down the duct. Indigo granules flow from caecal fistula within 4 or 48 hours after introduction into the rectum.

The question of stasis in the small intestine and of anal ulceration is taken up. The author inclines to the view that the organisms causing this ulceration reach their site by direct route of the testine.

Infections of the gall bladder and biliary channels are also considered and here again the author inclines to direct infection from the intestines rather than haematogenous, particularly in the acute infections of the gall bladder. He acknowledges as probable that the bacteria may after their passage through the liver and discharge in the bile, act as nuclei for gall-stones, but their virulence must be greatly reduced. On the other hand, the direct entrance from the duodenum of bacteria into the bile duct and up the cystic duct to the gall-bladder could easily cause cut septic cholecystitis. When the liver is acutely infected by the blood channel, abscesses may form in the liver but it is very rare that the gall-bladder is affected at the same time. Acute infections of the gall-bladder generally occur without any evidence of infection in the liver.

Typhoid carriers are usually females and the breeding ground of the bacilli has been shown by Lantz and Forster to be the gall-bladder. Bond says the clearing up of bacteriologic points would greatly help us in the question whether typhoid bacilli in an active and virulent state are present in the vomitus whether typhoid bacilli from the urine of typhoid patients which have presumably been secreted by the renal epithelium after passage through the blood stream are as virulent as the bacilli which are present in the stools of these people. Bond says that too little emphasis has been placed on the influence of mucus on the growth of microorganisms and the part played by the mucus in the protection of the epithelial cells. Pure bile injected into the pancreatic duct produces acute pancreatitis but when this bile is mixed with mucus, pancreatitis does not ensue (Opie). Bond says that probably different kinds of mucus—that is, mucus secreted by different kinds of epithelium—have different effects on organisms. From comparative anatomical viewpoint he points out the different kinds of salivary secretion the woodpecker has one which it uses to insects stick to the bird tongue and the other an ordinary non-viscid saliva which those insects do the bird throat.

The author considers the genito-urinary tract and mentions the frequency with which organisms are carried up from the vagina to the fertilized extremities of the testes. Indigo particles are also

carried up in this way in less than forty-eight hours. Cases of epididymitis are more easily explained by the transference along the vas deferens than by the blood stream. Gonococci in the blood would be very apt to set up joint conditions but the latter are rare compared to the former. Barnard and Lembartz emphasized the urinary tract as a possible route for bacteria to the pelvis of the kidney. C. Bond points out that coli cystitis is more common than bacilli pyelitis in children. Urinary stasis provides good condition for a reversed current in the tract and so infection by this route. Bond thinks that when bacilli can reach the pelvis of the kidney by the ascending urinary tract it produces symptoms and effects which differ from those produced by the same organisms when it reaches the kidney by the blood stream. He suggests that these differences depend on the fact that the organism is undergoing adaptation to a mucous and urinary environment in the one case and blood lymphatic stream environment in the other. Again, in considering infections of the mammary gland he thinks the bacteria are usually introduced by way of the nipple and ascend the ducts.

M. S. H. BARNARD.

Common Leukocytic Inclusions of Dohle J. Med. Record, 9, 3, 2120, 1910.

By Surg. Gynec. & Obst.

Diligent scientific work has been carried out in the investigation concerning the etiology of scarlet fever. Examinations of the lymph nodes, pharynx, skin, and blood have been made and from time to time new etiological factor has been suggested. Streptococci may play some part in the production of the disease. The most recent suggestion has been offered by Dohle who upon examining the blood smears of thirty cases found within the cytoplasm of the neutrophilic polymorphs multi-form bodies staining somewhat less darkly than the nuclei. These are found in large percentage of polymorphs in all except a few cases, which were examined later in the disease. There has been already some confirmatory work by other authors, namely Bretschneider of Strassburg who examined thirty scarlet fever cases and all showed inclusions. In one he found them day prior to the eruption, but the largest numbers were found during the first four days of the eruption.

Nicoll and Williams, using the Manson and Giesma stains, found inclusions in forty-five of fifty-one scarlet fever cases, which had been ill longer than eight days. Kolmer examined 6 cases of scarlet fever and confirmed the work of his predecessors. He also in diphtheria, sepsis, erysipelas, empyema and pneumonia reported positive findings. Franken of Hall examined twelve scarlet fever cases and found nine positive. In numerous other morbid processes and in normal people he failed to find inclusions. He considers that they are of diagnostic value. Some authors report that the examination of the blood of a series of normal children

show in many of them the presence of the inclusions. When a febrile eddion intervened the inclusions materially increased in numbers. They consider that these are not pathognomonic of disease—certainly not of scarlet fever.

The thor records his personal observations which were briefly as follow: 55 examinations of 95 febrile and 26 afebrile cases, normal individuals and 6 laboratory animals which are suffering from typhoid fever (1 case), scarlet fever (5 cases), tuberculosis (14 cases), croupous pneumonia (4 cases), m. m. p. (4 cases), local suppuration (4 cases) and various diseases in each case 100 neutrophils were examined except for typhoid fever 1 which fifty cells were examined.

The results of his investigation show that the so-called inclusion bodies are to be found in practically all febrile diseases and that they in some cases persist in decreasing numbers all into convalescence in pyrogenic conditions (chronic) of afebrile character: severe injuries without febrile disturbance and in some normal individuals. They are apparently absent in laboratory animals. A clear origin seems probable. The alleged specificity of scarlet fever has not been corroborated.

GEORGE E. BRILL

Cabot: The Lymphocytosis of Infection. *Am. J. Med. Sci.* 93: 315. By Surg. Gynec. & Obst.

The majority of infectious diseases are accompanied during their cut stages by polymuclear leukocytosis but occasionally infections show a lymphocytosis instead, the most striking instance of this being shown in whooping cough, when it is of such constant occurrence that some believe it to be of diagnostic importance. The group of cases here reported are such as would ordinarily be associated with polymuclear leukocytosis and appear to be connected at least in some cases with streptococcal infection and their practical interest to clinicians arises from the fact that they are liable to be confused with lymphatic leukemia.

Case 1. Wound infection, tonsillitis, lymphangitis and denites lymphocytosis continued fever with recovery.

The total number of leukocytes was never above 20,000, mostly of smaller types with no other blood changes. Recovery was slow but complete.

Case 2. Boils, persistent lymphocytosis, recovery. The disease was about eight weeks duration, the total number of white cells varied from 3,400 to 5,000, the differential counts showing polymuclears from 14 per cent to 20 per cent while the lymphocytes were from 79 per cent to 86 per cent.

Case 3. Occurred during an epidemic of streptococcal sore throat, the patient, girl of 20 years, in the course of the disease developed marked lymphadenitis of the neck, glands, axillae and submental region later she developed a cough with slightly blood-streaked sputum lost eight developed good deal of digestive disturbance with

sweats. Physical examination of the chest showed an abnormally dull percussive note over both apices especially the right the glands showed no tendency to break down. The leukocytes, upon the first examination were 9,000, polymuclears 8 per cent and lymphocytes 7 per cent eosinophiles 1 per cent. A week later she was much better the blood showing R. B. C. 5,600,000 W. B. C. 3,600 of which 36 per cent were polymuclears and 6 per cent lymphocytes eosinophiles 1 per cent.

Case 4. was a man who while in barber's chair had severe attack of vertigo, fainting and rattling. The patient had had a cold, short while before. A week later he developed swollen painful glands in the neck and as for the next ten days confined to his bed with fever and night sweats. Frequent blood examinations showed a leukocytosis from 500 to 3,500 polymuclears ranging from 30 to 60 per cent large lymphocytes from 4 to 67 per cent small lymphocytes from 8 to 4 per cent with eosinophiles as high as 1 per cent. In this case the differential diagnosis lay between streptococcal adenitis, tubercular adenitis and lymphatic leukemia. In the majority of cases of lymphatic leukemia the leukocytes run over 90 per cent and show broken-down forms.

SUMMARY

Wound sepsis, boils, and widespread streptococcal adenitis of tonsillar origin may be accompanied by lymphocytosis so pronounced as to suggest lymphatic leukemia.

No reason is known for this substitution of lymphocytosis for the usual polymuclear leukocytosis of infection.

The distinction between such a lymphocytosis (accompanied by denites) and leukemia, depends upon the recognition of an infectious origin of the adenitis upon the lesser degree of lymphocytosis of the infectious type and upon the course of the disease.

H. A. POTT

Ryford: Anemia as an Operative Risk. *T. Ins. Gynec. Sec.* 93, May. By Surg. Gynec. & Obst.

The author divides anemia into two classes that with compensation and that without compensation.

Anemia with compensation includes those cases that have acquired the resisting powers of a normal individual. The hemoglobin percentage may be quite low below fifty but the erythrocyte count is usually above 4,000,000.

The characteristics are: (1) the anemia has lasted long enough for an adjustment of the functions to the anemic state; (2) the patient is able to perform the duties of a moderately active life with comfort; (3) the muscular development is good; (4) there is an absence of marked emaciation; (5) the blood pressure is good and the pulse of normal frequency during resting periods; (6) the anemia responds slowly to treatment since an anemic habit has been acquired.

They take anesthetics well, stand major opera-

tions & it unless there is great loss of blood and recover promptly from it as of great depression.

Anemia without compensation is found in those patients who are unable to endure hard work, have poor muscular development, are deranged and usually have a low blood pressure and rapid pulse.

Several varieties are mentioned those with chronic sepsis, those bedridden by functional disorder, those subject to continuous depressing influences, nervous, those of recent occurrence and rapid improvement, those of the early stages of carcinoma from serious attacks of disease and those connected with serious chronic or progressive incurable diseases.

In estimating patient's resisting powers, attention should be given to the number and character of the erythrocytes as well as the hemoglobin percentage. Generally it may be said that the compensated cases stand operation better than the blood pictures would indicate while the uncompensated cases do not stand them well as it could indicate.

Guthrie Operation on Patient with Hemoglobin of 40 Per Cent or Less. J. Am. Gynec. & Obst. 1913, 17, 2.

C. H. examined the specimen from the Gynecological Department of the Johns Hopkins Hospital (case 839) and found about 40% which the hemoglobin was 4 per cent or below.

(H) the patient that recovered (since my mother was responsible for this decreased hemoglobin in forty cases and hyperplasia of the endometrium in twenty-three cases). Hyperplasia of the endometrium means an overgrowth of the mucous membrane that has an intact surface epithelium occasionally with slight polypoid outgrowths, very small glands in places and several large ones in others. In addition, the stroma of the mucosa is very dense and contains in some instances large umbels of nuclear figures. The veins in the stroma of the mucosa are often dilated and frequently contain thrombi. It is not a definite disease in itself. It usually occurs in women of the child-bearing period but has in a few instances been found in young girls. It is temporarily controlled by curettage. In many instances the curettage is necessary to do upervaginal by terectomy before relief takes place.

Squamous celled carcinoma of the cervix was responsible for the low hemoglobin in eighteen cases, pelvic inflammation in thirteen cases retained placenta in thirteen cases, fetal pregnancy in thirteen of the successful cases, adenomyoma of the uterus seven cases and chorioepithelioma in two cases.

Among other causes of the low hemoglobin, he mentions hemorrhoids, general pericardial carcinomas, desmocarcoma of the uterus, prolapsed rectum etc.

In 15 cases where patients recovered there were

49 cases between 4 and 36% inclusive
3 cases between 35 and 31% inclusive
29 cases between 3 and 16% inclusive
30 cases between 25 and 20% inclusive
4 cases below 20%
153 cases

C. H. gave the results of operations on large number of cases where the hemoglobin was below 30%. The operations performed were curettage vaginal removal of submucous myomata, exploratory laparotomy removal of one or both appendages, and by rectum vaginal abdominal. He then gave in detail the histories of patients with such low hemoglobin that operation could not be undertaken. He is doing in the hospital. Finally he reported a series of cases with low hemoglobin where the patient died after operation. His deductions are as follows.

From the foregoing it is clearly evident that as rule patient with relatively low hemoglobin stand pelvic or abdominal operations fairly well. Where carcinoma of the cervix or body of the uterus exists, however the dangers are materially increased.

In those cases where the bleeding is limited entirely to the menstrual period it is well to defer operation till a few days before the next period thus raising the percentage of hemoglobin to the maximum.

Hyperplasia of the endometrium is a definite disease. The bleeding caused by this condition often leads to low hemoglobin index which can be temporarily checked by curettage. Sometimes after curettage in the course of years the excessive flow cases. In these cases it is necessary to remove the body of the uterus.

I cannot impress too strongly upon the members of this society the necessity of their becoming thoroughly familiar with the technique of transfusion. This procedure as simplified by Bernheim can be readily employed by any surgeon and should not require more than 20 minutes to half an hour. Transfusion is certainly in the near future become

a routine procedure in cases where operations are required on patients with very low hemoglobin. It is hardly necessary to draw attention to the inadvisability of employing an anesthetic without cathartics after operation on such patients. I recently heard of a patient who not withstanding hemoglobin below 20% underwent a severe abdominal operation. A day or two afterward she was given calomel and salts and promptly died. The after treatment of these cases requires the greatest care coupled with the avoidance of anything that will in the least measure diminish the patient's strength.

Schenck, Thrombosis and Embolism Following Operation and Childbirth. J. Am. Gynec. & Obst. 1913, 17, 2.

The author based this paper on a previous study of forty-eight cases, supplemented by nine personal

cases, four of which followed confinement and five operations.

Thrombosis of the pelvic veins is common and often unrecognized. It affected the veins of the leg 38 times among 96,000 hysterical cases collected from literature and 566 times after 49161 operations, giving percentages of 0.04 and .15 respectively. There were 96 instances after 3204 myoma operations or 3.0 per cent.

The etiology is difficult to prove. An analysis of many facts seems to show that injury to the endothelial lining of the veins and slowing of the blood stream are important predisposing causes, but there must be some other factor and this Schenck believes to be the hemagglutines set free by hemolytic bacteria. His argument is as follows:

Thrombi are formed by the agglutination of platelets and red blood corpuscles. The most frequent cause of agglutination is the action of hemolytic bacteria. This action bears no relationship to the virulence as regards sepsis. Such bacteria may frequently be present causing no other symptoms of their presence. Hence we have the picture of an aseptic thrombosis.

There are no reliable premonitory symptoms. Especial stress is laid on the meaning of slight or severe chest pains during the convalescence.

Prophylaxis begins before is kept in mind during, and receives particular attention after operation. The author advocates systematic exercises while the patient is in bed.

Sixty-five per cent of the affected patients never fully recover. If complete restoration is to follow it will come in the first year.

The status of the Trendelenburg operation for extraction of an embolus from the pulmonary artery is reviewed.

BLOOD AND LYMPH VESSELS

Vaughan. Two Cases of Aneurism Treated by the Sistrin Method. *J. Am. Med. Ass.* 9 May. By Surg. Gyner. & Obst.

Vaughan agrees with the statement that the method of treating aneurisms works the greatest improvement in the treatment of such conditions since the days of John Hunter. He reports two cases.

Case. It became necessary to change a contemplated reconstructive aneurismorrhaphy into one of the obliterative kind combined with an Aneurism on account of the impossibility of controlling the hemorrhage in the sac. The patient was a former soldier, white, twenty-nine years old, and insane. The aneurism was operated on about one month after its discovery. At that time swelling three inches long and one and one half inches in width was noticed in the left groin, with brisk and expansile pulsation. The vessels were exposed by an incision extending along the femoral artery upward across Poupert ligament then out and along the outer side of the inguinal canal and stripping up the peritoneum until the external iliac

was exposed as high as the bifurcation of the common iliac. The aneurism was about two inches long, irregularly fusiform in shape and extended above and below Poupert ligament. The iliac femoral vein was closely adherent to the inner side. The artery was clamped above and below with rubber padded forceps. This stopped pulsation but on opening the sac, red blood flowed out in a steady stream. Attempts were made to control this flow by pressure beneath and to the inner and outer sides, thinking it might come from a collateral branch but without success. So the walls of the sac were sutured together and then turned in by a second row of catgut sutures, and the external iliac artery was ligated about 1½ inches above. No pulsation in the arteries of the foot at the end of the operation and none was felt until fifteen days later. Good recovery. Death three months later from heart disease. The autopsy showed the sac filled with tough clot, also the external iliac artery up to the origin of the internal iliac. A second aneurism was found on the superior mesenteric artery, sacculated, about ¾ inches in diameter and filled with clot.

Case. Popliteal aneurism. Right side. Reconstructive operation. The patient was a negro male, 4 years old and had suffered with pain in the right knee for about one year. An oval, pulsating swelling about the size of a hen egg was seen in the popliteal space. On opening the vessels by incision, an irregular oblong sac was found and at its lower end separated by a constriction. A second sac was seen about half the size of the first but longer and gradually diminishing in size to the normal caliber of the artery. The artery was controlled by means of rubber bands around it, clamped by hemostats, the sacs were incised, the clots turned out and the walls sutured with fine catgut, turning in successive layers of the sacs until they were obliterated and the lumen of the artery restored to about its normal diameter. At the close of the operation feeble pulsation could be felt in the artery below. Next day pulsation could be felt in the arteries of the foot. Good recovery—well one year later.

Regina. An aneurism of the Superficial Palmar Arch (Aneurisme du 1^{er} arcade palmaire superficielle). *Rev. de chir.* 9 3, 274, 357. By Journal de Chirurgie.

The rarity of aneurisms of the palm of the hand, especially of those caused by repeated contusions, is the cause of the author's reporting a case of aneurism of the superficial palmar arch in a man 37 years old who was an assistant gunner's mate.

During his maneuvers in 91, the patient was several times obliged to strike the breech of the gun forcibly with the palm of his hand in order to open it. He felt severe pain near the inner border of the hand. In three weeks a small tumor developed which in nine or ten months grew to the size of a hazel nut. This tumor which is partly reducible, is pulsating.

Operation local cocaine anesthesia, dissection of the aneurism double ligation of the arch and ligation and section of the first digital artery removal of the aneurism and cure.

Excision, which has been performed successfully seven times, seems to be the only correct surgical treatment.

That this was caused by contusion, as is rarely the case seems indisputable. So this must be considered as an etiological factor in such aneurisms even though there is the history of previous wound as is frequently the case. J. O'NEILL

Freeman Arterio-Venous Anastomosis for Threatened Gangrene of the Foot. *T. Am Surg. J.* p. 3, 31 y. B) Surg., Gynec. & Obst.

Following the report of a case in which an unsuccessful attempt was made to check the progress of incipient premenstrual gangrene of the foot by reversal of the circulation attention is called to the large proportion of failures in these operations, due perhaps, more to inherent deficiencies than to faulty technique.

A good and permanent result must depend upon the passage of sufficient quantity of arterial blood through the most ramifications of the femoral vein into the capillaries. A certain amount of blood may be secured in doing this (75 to 4%, according to Rothman) but it is more than probable that by far the greater portion promptly returns to the trunk through the numerous anastomotic veins, without reaching the capillaries.

The temporary improvements which have been observed following it no venous anastomosis, such as the return of color and warmth to the affected part, the inhibition of the gangrenous process, and the disappearance of pain and numbness, may be due merely to the passive hyperemia produced by ligation of the femoral vein as suggested by Oppel and by Moskowitz, and not to the reversal of the circulation.

From theoretical considerations and from the result so far obtained in arterio-venous anastomosis for threatened gangrene of the extremities the following conclusions may perhaps be drawn.

Although the procedure is justifiable in a few well-selected cases, it seldom has been followed by success, and even then its real value may be questioned owing to the fact that spontaneous recoveries occasionally occur—with as much frequency perhaps, as do operative successes.

Owing to the uncertainty of the value of the operation, one should at least endeavor to do as little harm as possible. Hence, from this point of view it is better to do side-to-side anastomosis, or to implant the distal end of the vein into the side of the artery rather than to unite the two vessels end-to-end thus preserving to the limb its remaining arterial circulation, however little that may be.

3. According to our present knowledge, operations upon the upper extremities should be con-

sidered with reservation, owing to the comparative frequency of spontaneous recoveries.

Shattuck Occlusion of the Inferior Vena Cava, as a Result of Internal Trauma. *Proc. Roy. Soc. Med.* p. 1, vi 20. By Surg., Gynec. & Obst.

The author describes the case of a doctor who when he was 24 years of age, ran several races, in the last of which he held his breath for the entire race of 20 yards in sixteen seconds. Immediately after the race was over he lay on the grass and within a few moments complained of pain in the lumbar-spinal region. He was put to bed where he remained for six months. Edema of the legs and to lesser degree of the abdomen and scrotum, supervened and once he persisted for the period mentioned. While in bed the superficial veins began within a few days to dilate, and their enlargement slowly progressed. During the rest of his life the distended veins were supported by the systematic use of carefully adjusted elastic pants, reaching as high as the thorax. Albuminuria appeared directly after the event and persisted through life. Death occurred twenty-five years later. During the last six years of his life he was troubled great deal with attacks of phlebitis and thrombosis in the enlarged saphenous veins, these attacks being easily brought on. September 5, 1900, the patient noticed some tenderness and discoloration behind the right internal malleolus; this extended to the dorsum of the foot. On the 10th, the temperature was 100° F. and he had slight rigors. The next day his throat was sore and this gradually grew worse. He died on October 3 from acute tonsillitis and septicemia. Autopsy performed six hours after death.

The following is a description of the autopsy findings of the vena cava. The preparation consists of the superior and inferior vena cava wanting their cardiac terminations. The right axillary vein, the end of which was shown entering the superior vena cava, was considerably dilated. Except for its highest part the whole portion of the inferior vena cava preserved was converted into a flat, imperforated ribbon, which was most contracted and thinnest for a distance of 6.5 cm. opposite to and below the renal veins. Portion had been cut away from the front of the vessel below the veins last named to show that its lumen was completely occluded. The common iliac veins and the parts of the external and internal preserved were likewise flattened and obliterated, though somewhat less reduced in size owing to the presence of internal adherent coagulum. The tributaries and trunk of the left renal vein were pervious, although, as tested with the probe the entrance of the latter into the cava was closed the same was true of the trunk of the right renal. The right spermatic vein, as far as its entrance to the cava, was likewise pervious. From the left side of the lower part of the cava there projected the occluded end of one of the lumbar veins of the same side. The upper divided end of the inferior vena cava was pervious, though reduced in size.

It was found during the dissection that the hepatic veins were unoccluded. The return of blood from the kidneys must have taken place through the veins of the capsule and thence by way of the lumbar through the azygos vessels.

The author believes that the occlusion in this case was due to the blocking of the breath throughout the race. A localized rupture of the intima or the intima and the media took place, which was followed by forcible extravasation of blood into the walls of the vein while the exertion was still in progress that the lesion, in short, in the initial stage was the counterpart of dissecting aneurism of the aorta. With the removal of the abnormal pressure further extravasation into the vein wall ceased, the blood coagulated and the lumen was closed later by organization of the blood clot. The paper concludes with a full discussion on action of forced expiration and inspiration on the thoracic contents.

EDWARD L. CORNELL.

POISONS

Crowe. A New Method for the Differentiation of Certain of the Streptococci. *Proc Roy Soc Med* 9 3.

By Surg., Gynec & Obst.

The author uses Dorset's medium which is modified by carrying the process through in a sterile flask and adding neutral red as an indicator (.005%). The exact method of preparing the medium is given. When colonies are grown on this medium attention is paid to the color of the colony its shape and the effect, if any it produces on the surrounding media. The shape of the colony is most important. The consistency of the medium unless just right, will cause changes which prevent the appearance of characteristic colonies. The author describes the various shapes as cottage loaf, broad brimmed hat, draughtsman and flat types. The shape of the colonies is quite consistent but the color produced varies some with the age of the culture. Recently isolated germs give the best results. The value of the medium as a means of differentiation is diminished by the fact that some streptococci do not grow at all. Yet importance attaches to this negative property for the non-growers are chiefly confined to streptococci isolated from sputum.

The author places the commoner streptococci in two groups. A, the hung streptococci, B the remaining streptococci. Group A is further subdivided into those which grow on this medium and those which do not. In the former class he places the pneumococcus, *S. mucosus*, *S. epidemics* and the *S. mucosus* II. In the latter class are found various other streptococci, among them being the *S. mitis*, *S. mitior*, *S. longus* and *S. brevis*. In group B the division is made on the color produced primarily and secondarily by the difference in shape. Those producing yellow color are the *S. equinus* and several others which are not well known. Those producing the crimson color are the *S. salivarius*,

S. fecalis and the *S. pyogenes*. The characteristic growths of each of these organisms are fully described and well illustrated by means of a color plate.

The author believes that the Andrews-Gordon classification provides a good working basis, inasmuch as the streptococci thus divided present characteristic colonies, but by the use of the neutral red medium further definite subdivisions can be introduced. For instance, the salivarius group should be divided into three further subdivisions, the pneumococcus into perhaps three as well. By his classification he has been able to distinguish the chief varieties which cause arthritis in the human being.

EDWARD L. CORNELL.

SURGICAL THERAPEUTICS

Kömmel. Results of Operative and Non-Operative Treatment of Abdominal Tuberculosis (*Endoreakt der operativen und nichtoperativen Behandlung der Bauchtuberkulose*) *Zentralbl f Chir* 9 3, 21, 463.

By Zentralbl f d ges. Chir. I. Grenzgeb.

Kömmel reports one hundred and twenty-eight cases of abdominal tuberculosis observed since 1895. Eighty-five were operated upon, fifty-six because of general tubercular peritonitis with seven deaths soon after operation, (three complicated by ileus). Nineteen died afterwards of progressive tuberculosis. Thirty cases were permanently cured after 5-14 years, eight cases having been done within the past seven years. Nine operations were for tuberculosis of the cecum. Three of the patients died of progressive tuberculosis, six are well after 3-9 years. Five operations for tubercular appendix gave two recoveries and three late deaths. Nine operations were performed for tuberculosis of the duodenum, with one death and eight recoveries. Of three patients operated upon for tuberculosis of the mesenteric glands, two recovered and one died.

Thus, after operations for removal of abdominal organs affected with tuberculosis, the author got 53 per cent of permanent recoveries, which is of course, much more favorable result than that shown in general tubercular peritonitis. For the past three years he has treated the latter condition with Röntgen rays, sometimes alone and sometimes in conjunction with operation. Of eighteen patients so treated, four, who were in an extremely advanced stage of the disease died. All the others were favorably influenced. The rays were applied in the same way as for the treatment of myositis, different fields being exposed on alternate days to two-thirds of the dose necessary to produce erythema. A thick aluminum filter was used. It remains to be seen whether Falk's plan of exposing the open abdomen to intense X-ray action during the operation should be followed. As a general rule, Kömmel recommends peritonitis followed by X-ray treatment in exudative tuberculosis and X-ray treatment alone in dry tubercular peritonitis.

ANDER.

Touche Colloidal Calcium in the Treatment of Cancer (Du calcium colloïdal électrique dans le traitement du cancer) *Bull. et mem. Soc. med. de l'Hôp. de Par.* 9 3, xix, 45.

By Journal de Chirurgie.

The author has performed some clinical experiments with lectrocell m. II gave injections of 5 cc. at regular intervals about one week apart. Sometimes there was slight local and general reaction such as is spoken of by all authors but there were no harmful symptoms. It could be balanced the numerous advantages coming from it. Touche tried this therapy on three cancers of the face, two of the tongue, one of the tonsil, one of the thorax, two of the breast, eight cancers of the stomach, one of the intestine, three of the rectum, and one of the peritoneum and four cancers of the uterus. These twenty-seven cases are reported in detail in his communication.

It has been said that electrocalcium causes epidermalization of epitheliomas of the face that it clears up ulcerating cancers of the tongue and facilitates deglutition that it lessens pain in osteosarcoma that in cancer of the breast it facilitates intervention and hinders the spread that it modifies dyspeptic troubles and decreases intestinal obstruction in cancers of the intestine and peritoneum that it is a great help in cancers of the rectum by drying up the discharges and reducing involvement of the anus. In cancer of the uterus it is useful in that it causes the patient to think that she is getting better.

In concluding Touche said, "We believe that calcium will remain as a good palliative treatment for cancer."

J. Debove

Loeb and Fleisher Intravenous Injections of Various Substances in Animal Cancer *J. Am. A. Path. & Bacteriol.* 9 3, 117.

By Surg., Gynec. & Obst.

Colloidal copper and colloidal platinum acted in similar manner both inhibited the growth of tumors during the time of injection. Colloidal sulphur if active at all, is certainly not more active than either colloidal copper or platinum. On the other hand easily ionized salts of copper and of lanthanum are without effect on cancer. Combinations of copper with proteid substances are active.

The authors also tested one organic substance which, according to Morgenroth, is very active in preventing pneumococcus infection, namely ethylhydrocuprein. They found it without effect on cancer. Of the more complex organic substances they tested the following: various preparations of casein and of nucleoprotein, furthermore, serum globulin, homo-serum, egg-albumin, Witte's peptone, protosin, gelatin, lecithin and starch. Of these various substances only the first two named, casein and nucleoprotein, were effective, while all other substances were entirely inactive. One single intravenous injection of either of these two substances destroyed, in a large number of cases, great part of tumor while repeated intravenous injections prevented the growth of the tumor during

the period of injection. After cessation of the injections the growth started again in the majority of cases either immediately or after a period of latency.

The fact that another entirely different substance, namely leech extract, also exerted a marked action on tumor growth similar to nucleoprotein and casein but acting apparently somewhat more strongly than these latter two substances, seemed to them of great interest. They observed in a number of cases, after intravenous injection of leech extract, even a retrogression of the tumors, while one single injection caused a liquefaction and necrosis of a great part of the tumor. Also combinations of nucleoprotein and leech extract were effective.

It seems, therefore, that of the various proteins, carbohydrates, and lipoids which they have tested so far only the complex phosphorus-containing proteins are active. Of other substances they found leech extract acid and among inorganic substances only colloidal metals.

Very young tumors, from two to six days old, do not seem to be as easily influenced as are those from nine to fourteen days old. Only intravenous injection was effective.

Loeb and Fleisher investigated the action of some of these substances on experimentally produced placentomas in the guinea pig and rabbit. They found usually after one injection of casein some hemorrhages and subsequent necrosis colloidal copper seemed so far to be without any marked effect on placentomas. With Leighton they examined the effect of casein and of colloidal copper on wound-healing in white mice. The intravenous injection of these substances had no marked effect on the process of wound-healing.

In order to further study the action of the substances they injected a series of normal guinea pigs intravenously with the various solutions which they had tested in the case of tumors, and found that one single injection of nucleoprotein, and possibly casein, protosin and egg-albumin, caused frequently multiple necroses of the liver. The necrotic areas were usually situated midway between the portal and central part of the acinus. Other substances like gelatin and starch have not so far caused necroses of the liver in their experience. They have not been able to observe these necroses in the liver of the mouse even after repeated injections of those substances.

The authors think it most probable that the various substances which were found active in cancer of the mouse change the capillaries primarily increasing their permeability to the various constituents of the blood.

They reported previously that the intravenous injections of colloidal copper exerted definite action on a number of human cancers provided they had not been growing too rapidly. These injections of colloidal copper as was also stated before can, even in the most favorable cases, at present only lead to a partial retrogression of carcinoma in man.

It is noteworthy that while some cases are affected favorably other apparently similar cases are not, or are very little influenced by these injections. In further experiments carried out in conjunction with Lyon McClurg and Sweek, the authors found that also intravenous injections of solutions of casein may exert certain inhibiting action on the growth of some carcinomas in man. It is, however, less effective than colloidal copper. In one case of sarcoma of the humerus which they treated, injections of colloidal copper followed by injections of casein produced decided retrogression and partial calcification of the tumor.

Although so far the authors have not noticed that the casein has any injurious effect in patients, their observations regarding the possible production of necrosis of the liver in the guinea pig after intravenous injection of various proteins seem to them to make the use of such proteins in the case of human beings inadvisable at present.

Kausch. On Collargol (Über Collargol). *Deutscher chir. Kong.* 9-3.

By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

In general septic conditions with remittent fever Kausch found collargol of Crédé to be of distinct value. The author shows a large number of such temperature curves, in which the onset was marked by high fever which later rapidly returned to normal. The regularity of such phenomena speaks against the coincidence of spontaneous fall in temperature and the injection of collargol. More corroborative still are those cases which required repeated injections, because the effect at first was only temporary (five such temperature curves are shown). Little or no result was obtained by Kausch in cases of sepsis with continued high fever (two such curves demonstrated). Only in cases with small pus foci does collargol seem of service — not in the presence of large pus accumulations. Cases are particularly suitable in which the temperature remains high after the opening up of pus foci. (Three such curves shown. Abscess of the neck from diphtheria bacilli, septic conditions of the ear and empyema.) Kausch as yet has not used collargol as prophylactic measure but intends so doing.

He uses the Crédé preparation. Intravenous injection is the only rational method per rectum, collargol may be given only when it is impossible or not permitted to inject into the vein. Up to 30 cc. may be given directly into the vein without surgically exposing it. Average dose 10 cc. of 1 per cent solution. In severe cases it may be given daily or 30

30 cc. every other day. The injection must be made very slowly and is then wholly without danger.

Kausch has treated also eleven cases of inoperable cancer with large doses of collargol, up to 100 cc. Some of these cases have received also X-ray treatment. No case was cured however. The patients did not permit energetic carrying out of the treatment. One case of carcinoma of the liver metastatic from cancer of the stomach, showed transitory improvement. One case died three days after injection of 80 cc. and the kidneys were found to be plugged with silver. Autopsy Kausch proposes further to carry work with collargol and other heavy metals in treatment of carcinoma.

ELECTROLOGY

Freyd and Kammer. The Chemical Action of the Röntgen Rays and of Radium on Carcinoma (Über chemische Wirkungen von Röntgen und Radiumbestrahlung in Bezug auf Carcinome). *Wiss. Mit. Weisker* 1913, xvi, 301.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The authors applied toxic doses of X-ray and of radium to portions of skin in order to determine the effect the rays would have on the ether-soluble fatty acid found in normal tissues and serum. This fatty acid has prophylactic action on carcinomatous tissue. The results of the experiments follow: toxic doses of X-ray caused the fatty acid normally present to disappear whereas radium liberated the ether-soluble fatty acid from the pathologic nucleoglobulin of the carcinoma when the latter was exposed. Cancer cells lose their power of making use of carbohydrates when the tissues exposed to radium emanation.

Exposing of skin to the X-rays caused the ether-soluble fatty acid to disappear but exposing the same piece of skin to radium again liberated the fatty acid normally present. The authors believe that the X-rays couple the acid to some substance insoluble in ether whereas radium restores the solubility of the acid by breaking the chemical bonds that unite it with the insoluble substance. These facts may have practical application in cases of X-ray burns etc., where radium treatment may restore the ether-soluble fatty acid that has the power of destroying carcinoma cells. Over-exposure with the X-ray lowers the local resistance and makes carcinoma possible. Radium has this therapeutic value that it robs the injurious substance in carcinomatous tissue of its pathological properties.

LOEWENTZ.

GYNECOLOGY

UTERUS

Geilhorn The Extended Vaginal Operation for Cancer of the Cervix Uteri. *Surg. Gynec. & Obst.* 9 3, xvii, 284. By Surg. Gynec. & Obst.

In cancer of the cervix uteri only extended operations give promise of an improvement in final results. A general outline of the technique of the extended vaginal method as first devised by Schuchardt and later perfected by Schauta, is given. While in America the radical abdominal method is slowly gaining ground the radical vaginal operation is practically unknown. Yet even the most enthusiastic advocates of the abdominal route admit that the high primary mortality of the abdominal operation contraindicates its use in fat women in those beyond the age of 60 and in persons greatly reduced in strength by cachexia, sepsis, or heart disease. In such cases the extended vaginal operation is preferable with its primary mortality of about 5 per cent as compared with the mortality of the abdominal method, which is still in the neighborhood of 15 per cent. The relative percentage of cures, i. e. the proportion between the number of operated cases and those who remained free from recurrence for five years, is substantially the same with both methods. It remains somewhere near 4 per cent.

The systematic removal of the pelvic lymph glands, which at first was considered of fundamental value as to the final outcome, no longer forms an integral part of the abdominal operation. Any previous antagonism between the two methods on this point is thereby eliminated. The operability by the abdominal route is on an average from 10 to 15 per cent higher which is due in part to complications such as pregnancy, fibroid, hernia, and ovaritis and tubal tumors, which in themselves would call for abdominal intervention. This increased operability explains the difference in the absolute percentage of cures which, with the abdominal method, ranges between 16 and 27.5 per cent while with the vaginal method from 6.4 to 9.3 per cent of all cases admitted were found cured after five years.

As to the choice of methods, the author concludes that in fat persons, in old women, and in those suffering from cachexia, sepsis, or heart disease the vaginal method is preferable. In very early stages of cancer both methods should be considered on equal terms. In moderately advanced cases the abdominal operation is the method of choice. In far advanced cases no radical operation should be attempted, for the high mortality and morbidity and the large number of recurrences are out of all proportion to the chances for cure. These cases do far better under palliative treatment. The chief

principle of such palliative treatment must be to eliminate sepsis from the ulcerating cancer. The cancer itself grows more slowly and causes comparatively slight symptoms if the mixed infection with streptococci and staphylococci is removed. After all, the solution of the cancer problem will not be found by operative means but along biochemical lines.

Collen The Radical Operation for Cancer of the Uterus. *Surg. Gynec. & Obst.* 9 3, xvii, 284. By Surg. Gynec. & Obst.

Collen sent out letters to surgeons of the South to learn what their experience had been with the radical operation for cancer of the cervix. Very few had had much experience with the operation and even those who had, rarely kept records of the subsequent history.

The author expressed himself strongly in favor of the radical operation and urged the surgeon to take stock of his post-operative cases at regular intervals so that the final results of the radical operation in America might be available.

He then gave his own results in 49 cases:

Immediate deaths	cases
Not located	3 cases
Patients living	14 cases
Remote deaths	cases at
periods varying from	few months to nearly 6 years.

Twenty-six of this number were operated on over five years ago with the following results:

Immediate death	7 cases
Not located	1 case
Living	7 or 26.9%

Of the patients now living,

is well	6 1/4 years after operation.
is well	8 years after operation.
is well	8 years and 4 months after operation.
is well	8 years and 6 months after operation.
is well	9 years and 8 months after operation.
is well	9 years and 10 months after operation.
is well	3 years after operation.

In conclusion Collen drew attention to the fact that campaigns having for their aim the education of the family physician as to the early diagnosis of cancer of the cervix and body had yielded little simply because the patients did not come to the physician early. He strongly emphasized the fact that it was absolutely necessary to tell the women of the country that cancer in the early stages was strictly local process and not blood disease and that when taken early could often be totally removed. He said that this information could only be successfully disseminated by the press and

advocated publishing simple and direct articles in the daily press and the weekly or monthly magazines.

Clark. The Radical Abdominal Operation for Cancer of the Uterus. *Surg. Gynec. & Obst.*, 9 3, xvi, 55. By Surg., Gynec. & Obst.

Clark reports 36 cases of cancer of the cervix which have been subjected to the radical operation in the University Hospital. This group of cases has been particularly selected because of the more extensive case histories and the possibility of tracing the final results. Briefly summarized, the results are as follows:

Total number of cases	36
Operative deaths (peritonitis)	3
Died from recurrence in 3 months	1
Died from recurrence in 6 months	3
Died from recurrence in 9 months	
Died from recurrence in 10 months	
Died from recurrence in 11 months	
Died from recurrence in 12 months	3
Died from recurrence in 13 months	5
Unable to trace	7
Alive and no sign of recurrence —	
One year	
One and one half years	2
Three years	
Four years	1
Four and one half years	
Six years	3
Total	— 36

POST-OPERATIVE SEQUELAE —

Separation of abdominal incision	5
Cystitis	4
Peritonitis (recovery)	
Urteral fistula	3
Vesical fistula	5
Phlebitis	1
Laceration of rectum (fistula)	
Pleurisy	1
Rectovaginal fistula	1

These accidents largely occurred in the advanced cases in which the bladder or rectum were so closely involved as to render them almost unavoidable. Unfortunately one frequently cannot determine before the operation has advanced beyond a point where it is impossible to abandon it, the degree of cancerous extension; consequently all operations for cancer of the cervix must unavoidably be attended with greater risks than in any other gynecological disease requiring hysterectomy.

However in every series of cases thus far reported in which the radical operation has been employed, the surgical mishaps and post-operative sequelae of greater or lesser extent have been relatively much larger than in the reports of simple hysterectomy cases.

As the matter now stands, the combined statistics favor the further trial and perfection of the radical operation among those who are well prepared to carry it out in the most successful manner. There

can be no middle-of-the-road policy. Either the operation must be extremely radical, with the proportionately higher primary mortality and many distressing sequelae and with a larger number of ultimate cures among the survivors, or on the other hand it must be a most simple technique with a minimum primary mortality, few sequelae, and a much smaller curative basis. Because of the difficulty of carrying out the technique of the radical operation, Clark does not believe that it may ever become generally available for the larger number of surgeons. Hence he hopes that some means of simplifying the technique and rendering it less dangerous may be devised. From a review of the literature and from his personal experience he offers the following summary concerning the radical operation.

The operation, in expert hands notwithstanding its high primary mortality has given the greatest percentage of permanent cures of any therapeutic procedure thus far suggested for cancer of the cervix.

1. While the above conclusion is true, the general adoption of the operation, in view of its dangers and difficulties, is not to be advised until the primary mortality can be reduced to much lower percentage by a simplification or perfection of details.

2. The abandonment of the extensive glandular dissection is justified, because this detail adds to the hazards and does not sufficiently raise the percentage of permanent cures.

3. The cardinal advantage of the operation lies, first and above all, in the excision of an extensive cuff of vagina and the widest possible removal of the parametrial tissue.

4. There is no middle-of-the-road policy in cancer of the cervix. The surgeon would better perform a simple vaginal hysterectomy or a high amputation of the cervix with extensive cauterization than to attempt the radical operation if he is not prepared to effectively execute its details.

5. The earnest endeavor by many specialists, with the improved ultimate cures in a few hands, offers the hope that a further simplification and perfection of details in this operation may yet make it more generally available.

Wiebel. The Extended Abdominal Radical Operation for Cancer of the Uterus. *Surg. Gynec. & Obst.*, 9 3, xvi, 551. By Surg., Gynec. & Obst.

The radical operation of Wertheim according to Wiebel, is characterized by the following two points. It offers the widest excision of the parametrium and the removal of the pelvic glands. In order to remove as much parametrium as possible it is necessary to expose the ureters and to push them far as far as a preventive measure.

The technique of the operation is as follows. Scraping and cauterizing of the cancer immediately before operation, without anesthesia, to save the patient's heart. Trendelenburg position. Incision in the median line. Wide separation of the bladder

from the uterus and vagina, tying of the inferior pelvic and round ligaments dividing the two layers of the broad ligament. The ureter is exposed up to the entrance into the parametrium without isolating it. Here the ureter is crossed and covered by the uterine vessels. The index finger is pushed through the parametrium between the ureter and vessels, thereby isolating the latter. By this means the ureter is protected during the ligation of the artery and vein. The whole pelvic portion of the ureter thus becomes so accessible that it is easy to complete its separation. Separation of the rectum from the vagina is the next step.

Wide excision of the parametrium follows, after putting on bent clamps for the prevention of hemorrhage. Two strong clamps are then applied to the already isolated vagina, so that the cancerous tissue is completely enclosed, thereby preventing its dissemination after the opening of the vagina.

The next step is the removal of the lymph glands. They lie along the common iliac, the external, and the hypogastric iliac and in the trigonum between both, also downward to the obturator foramen and high up as far as the division of the aorta.

The pelvic wound is always drained by iodoform gauze and the peritoneum is closed carefully. But if there is not enough peritoneal material, or if this is infected, one should refrain from the complete closure of the peritoneum.

The freeing of the ureter in this operation is very important part. Sometimes it is necessary to literally dig the ureter out of the cancerous tissue. Microscopic examination shows that cancer involves the ureter very seldom and very late and therefore it seems justifiable to free it, even when buried in cancerous tissue instead of resecting and later implanting it in the bladder. In a small percentage of cases, about 5, it seems advisable to resect the ureter. Retro-vaginal fistula forms in a certain percentage of the cases, due to necrosis of the ureteral wall but the majority of these close spontaneously.

The bladder is frequently involved and attached to the uterus, and resection is sometimes necessary. The rectum is rarely involved and its resection is very seldom required.

The after results of the operation show that, of the 380 cases which passed the necessary five years following operation before being allowed to figure in the result, 8 died of intercurrent diseases, and 60 remained well and free from recurrence. Thus the percentage of cure in cases operated upon is 43. If the primary deaths are left out, as they should not figure with respect to after results, the percentage of patients cured is 53. J. H. SAMPSON.

Sampson Result of the Radical Abdominal Operation for Cancer of the Uterine Cervix.
Report of 25 Cases. *Surg., Gynec. & Obst.* 9 2, xvi, 324.
By Surg. Gynec. & Obst.

Since the spring of 1905 the writer has operated upon 3 patients by the radical abdominal opera-

tion for cancer of the cervix. Some of the pelvic lymph nodes were removed in 1 of the operations, and these were examined microscopically in all but one instance. Metastases were found in one or more nodes in 7 of the 3 cases.

Five patients died as the result of the operation, 4 of these were advanced cases. In the author's experience, the operation in the favorable cases is attended with a very low primary mortality, the high primary mortality occurring in the border-line and advanced cases.

As to the end results (five-year limit) 8 of the 25 patients were operated upon over five years ago. Two of these died as the result of the operation; 3 died later from recurrence; and 4 are clinically free from cancer at the present time, i. e. 4 out of 8 cases operated upon, and of 6 surviving the operation.

The patients dying from recurrence were both young women, averaging 3 years, who had never had children. The type of growth was inverting, arising from the portio vaginalis, the cases appearing favorable before the operation. Both died from extension of metastasis in accessible iliac lymph nodes. A small recurrence in the field of operation was present in one.

The four apparently free from cancer five years or more after the operation (two nearly seven years) had an average age of 45+ years, three had borne children, the other had not. The type of growth in three was inverting, arising within the cervix in one inverting, arising from the portio vaginalis. Three of the four appeared unfavorable before the operation. Only one were the accessible pelvic lymph nodes removed, and cancer was found in one of these.

Need. Results after the Wertheim Operation for Carcinoma of the Uterus. *Surg. Gynec. & Obst.* 9 2, xvi, 793.
By Surg. Gynec. & Obst.

Since 1900 the extensive abdominal operation has been employed in practically all cases of carcinoma of the cervix. The percentage of operability for the last five years has been 54. During the last 3 years the radical abdominal operation has been performed in 36 cases in 70 cases, period of five years or more has elapsed. Excluding the number lost track of (9 cases) the percentage of permanent cures is 53.3. The primary mortality for the last five years has been 7 per cent. Excluding the number of primary deaths, the number dying from other causes, and the number lost track of the percentage of permanent cures is 55.

The author reaches the following conclusions:
The extensive abdominal operation for the removal of all uterine cervical carcinoma is justified here there is any hope of complete removal.

An exploratory laparotomy is often necessary to determine whether or not a case is operable.

3. The preliminary catheterization of the ureters is advisable, especially in fat patients, and does not necessarily increase the probability of fistula or secondary infection of the urinary tract.

4. Preliminary cauterization and disinfection of the primary growth is advisable in all cases.

5. A horizontal lipectomy in obese patients decreases the depth of the field of operation and shortens the time necessary for its completion.

6. The present operative facilities and technique do not justify an extensive resection of the lymphatic glands on account of the great increase in the primary mortality following such a procedure.

7. All patients should be kept in the Fowler position for several days unless this is otherwise contraindicated by symptoms of surgical shock.

8. By improvements in the technique of the operation, the primary mortality has been decreased from 18 per cent for the first seven years to 7 per cent for the last five years.

9. Aside from the discovery of the etiological factor of carcinoma of the cervix of the uterus and its successful elimination, the greatest hope lies in the early recognition of the primary growth.

Pollomon and Violet The Study of Six Cases of Malignant Chorio-Epithelioma. (*Étude sur six cas de chorio-épithéliomes malins*). *Lyon chir.* 9, 3, ix, 35. By *Journal de Chirurgie*.

In connection with six personal cases, the detailed observation of which can be found in their original article the authors recall the principal points in the history of these tumors. Their origin to-day is no longer discussed. They are characterized by proliferation of the epithelium of the chorionic villi, Langhans and syncytial cells. The term deciduoma therefore should be abandoned and should be replaced by chorio-epithelioma.

These chorio-epithelioma always follow pregnancy either normal (2 per cent according to Briquet statistics of 7 cases) or abortion (33 per cent) or frequently a hydatiform mol (41 per cent) or even, though rarely a tubal pregnancy (per cent). The personal cases of Pollomon and Violet confirm the frequency of the presence of a mole at the site of origin of chorio-epithelioma (four out of six cases). The development of the malignant tumor is not however necessarily the outcome of molar pregnancy nor is it even very frequent termination, since Semmichs only found three chorio-epithelioma in forty-nine molar pregnancies.

The tumor lodges on a level with the zone of implantation of the placenta. It is sometimes pedunculated (polypoid form) and sometimes intramural (interstitial form). Both types have been observed by Pollomon and Violet. The number and size of these tumors is variable. The constant presence of hemorrhagic foci gives them very distinctive truffled appearance. They are soft and very friable.

Propagation is affected solely by the hematogenous route the neoplastic buds have tendency to rapidly invade the veins. The lymphatics are practically never involved. On the other hand, metastases are frequent and of rapid growth, especially in the lung and secondarily in other viscera

(the liver kidneys, spleen, brain, etc). Special mention must be made of vaginal metastases (from retrograde venous emboli) which are not at all rare, and of which the authors report an example.

The most constant and characteristic symptom is hemorrhage which is differentiated from the ordinary metrorrhagia following abortion or labor by its abundance and long duration. It leads frequently to a state of profound anemia, and true cachexia. It can also be accompanied by infection with fever chills and bloody discharge. The uterus is large and irregular in outline like a fibromatous uterus. Yet this enlargement is not always great, and certain cases are recognized only by intra uterine exploration (touch, curettage, and microscopical examination of curettings).

The prognosis is very grave, in spite of the fact that certain cases have been known to recover spontaneously. The only treatment is hysterectomy. Pollomon and Violet have used the abdominal route in all their cases and in one of them they dissected out the ureters from secondary foci surrounding them at the base of the involved broad ligament. The operative mortality is low.

The ultimate results are encouraging according to the observations of the authors, who have four patients in good health after five four and three years. No patient of Nove-Josseland remains free from recurrence twenty years after operation.

CH. LEHMANN

Miller The Relation between Sarcoma of the Uterus and Its Bearings on X Ray Therapy of Uterine Myomata. *Surg., Gynec. & Obst.*, 9, 3, xvi, 55. B. *Surg. Gynec. & Obst.*

In this paper the author takes up the following questions—

What percentage of myomata are found to be sarcomatous?

2. What is the primary operative mortality of the radical myoma operation?

3. What is the primary perative mortality in sarcoma cases? What is the percentage cured?

4. What per cent of sarcomata can be diagnosed? That is, if they all come to us in consultation, what per cent should we not treat with X-rays?

Thus the argument here introduced is in reply to opponents of the X ray therapy who Miller thinks have painted very black pictures of the heavy responsibility that the X-ray therapeutists take upon themselves.

Figures have been taken from the literature presenting reports of continuous series of cases among which the search for sarcoma was made, from which statistics the first question is answered with per cent.

A second table is a compilation representing radical operations such as are usually done in myoma cases, showing the primary mortality of the radical myoma operation to be between 4 and 5 per cent.

A third table based upon the study of 80 cases

from the literature, is offered in reply to the third question. Where this same radical operation is performed, a certain cure of more than 5 per cent at the worst cannot be assured.

Miller sees little or no progress being made in diagnosis, sarcomatous degeneration being almost impossible in the early stages, and microscopical examination being reserved until the case becomes suspicious. Of the 80 cases from the literature he has selected those which satisfy the conditions of (1) a radical operation and (2) a microscopic corroboration of the diagnosis or a history of subsequent recurrence or metastasis. Nine of these cases were thrown out because of poor histories and findings. These cases were then presented to Kronig, who answered the question whether or not he would subject each case to X-ray treatment, using the indications which obtain in the Freiburg clinic as given in the monograph of Gause and Lembcke.

The results of the consideration of these 80 cases are as follows:

Of 80 cases, 55 or 68.75 per cent, would receive X-rays, 6, or 7.5 per cent, would not receive X-rays, 9, or 11.25 per cent, unknown.

(1) Of these 55 cases which would have received X-ray treatment, 7 or 12.7 per cent, under the operative treatment, were reported more than 3 months later as free from recurrence, 24, or 43.6 per cent, died following operation or from recurrence, 24 or 43.6 per cent, were not followed over one year.

(2) Of the 6 cases which would not have received X-ray treatment, 14, or 1 per cent, were reported over months later as cured, 5 or 44.8 per cent, died following operation or recurrence, 50, or 43.6 per cent, unknown.

(3) Of the 9 cases where answer was impossible, were alive over one year, 3 died following operation or recurrence, and were not reported.

4. If we consider the different kinds of sarcoma separately the following figures are obtained. There were 74 out of 80 reported as interstitial in origin, of which 3 would have received X-rays, 39 would not, and 5 were doubtful.

(4) Of the 3 which would have received X-ray treatment, 3 were free from recurrence after months, 6 died, and 3 were not reported.

(5) Of the 39 which would not have received X-ray treatment, were free from recurrence after 1 months, 8 died, and 9 were not reported.

(6) Of the 3 doubtful cases, 1 lived over year, died, and was not reported.

5. Only 3 out of 40 sarcomata of the uterine mucosa would have received X-ray treatment; 36 would not, and case was doubtful.

(7) Of the 3 cases which would have received X-ray treatment, lived over a year, died, and was not reported.

(8) Of the 36 cases which would not have received X-ray treatment, 1 lived over year, 6 died, and 4 were not reported.

4. Of the 66 cases in which the origin of the sarcoma was not designated, would have been rayed, 4 would not, and 5 were doubtful.

(9) Of the 21 cases which would have received X-ray treatment, 4 were free from recurrence over one year, 7 died, and 10 were not reported.

(10) Of the 40 cases which would not have received X-ray treatment, 5 were reported well after one year, 6 died, and 19 were not reported.

(11) Of the 5 doubtful cases, was alive after one year, and 4 died.

Miller admits that, of the 55 cases which he would have treated with X-rays, 7 probably would have died under that treatment, whereas they were reported after one year as cured. He is satisfied, however, at such small loss when he considers the high mortality and poor end results of the operative treatment. Of the 74 interstitial sarcomata, 39 would have been rayed; that is, mistake in diagnosis in 43.6 per cent of the cases. Now allowing such a percentage of error and assuming two sarcomata among 100 myoma cases, the author argues that therefore, in 125 myomata, one, through failure in diagnosis, would be subjected to X-ray treatment, mortality of 0.8 per cent, corresponding exactly to the experience in the Freiburg clinic. Here, during 8 months, 5 sarcomata appeared among 60 myoma cases. These 5 cases are reported in detail. During the preceding 25 months 47 myoma cases were treated entirely by X-rays and 38 cases have been subsequently so handled. None of these has thus far shown signs of malignancy.

The author then calls attention to the destructive action of the X-rays on carcinomatous and sarcomatous growths in general, as a result of which he claims the right to use the X-ray treatment conditionally in uncertain cases, later undertaking operation if necessary without undergoing any great difference in the chances of cure. In closing he says:

When the public learns that not every tumor of the uterus demands operation, but that there are also efficient conservative methods, we shall certainly be in a position to get hold of more malignant growths in the curable stage.

In view of the above facts I believe there can be no further doubt that a routine operative treatment of myoma of the uterus, for fear of sarcomatous degeneration, need not be carried out. This ghost should be buried once. CAREY COLEBURN.

Fleischmann. Surgical Treatment of Myomata (Beitrag zur operativen Myombehandlung). *Wien. Klin. Wochenschr.* 1913, xxv, 445.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk. d. Grenzgeb.

The author refers to 51 cases of operated myomata with mortality of 3 per cent, bilateral total extirpation had mortality of 5.9 per cent, the supravaginal amputation, 0 per cent, the abdominal conservative operations, 6 per cent and the vaginal operation of per cent. The method of choice in the laparotomy was the supravaginal amputation which was performed 10 times. The special points

in the technique are (1) the cervical stump must be as small as possible (2) separate ligation of vessels must be performed to ligation en masse (3) formation of a good anterior peritoneal flap is necessary (4) the cervical canal is always left open. Radical extirpation was indicated in cervical myomata, in myomata with necrosis and suspicion of malignancy and in cases complicated with severe infectious processes in the pelvis. Vaginal drainage was rarely employed. The peritoneum must be carefully closed without leaving any cavities over the vaginal edges. Two cases died from embolism of the pulmonary artery two from acute purulent peritonitis and one from a weak heart two hours after the operation. The low mortality of a per cent the writer hopes further to reduce by the X-ray treatment in a correct selection of cases. The objections that the cases of myomata subjected to operation had been selected ones is refuted as he operated on every case needing surgical help excepting only one case in the

SACRUM.

Brettaner. Further Report of Cases of Dysmenorrhea Relieved by Nasal Treatment. *T. Am. Gynec. Ass.*, 213, May. By Surg., Gynec. & Obst.

BRETTANER said after an experience of two and one half years with the nasal treatment of dysmenorrhea, the final results showed that in about one half the number of cases so treated, the results were favorable. In some cases the benefit was temporary requiring another course of nasal treatment. In other instances the relief was prompt and permanent after three or four caustic applications to the nasal spots during a menstrual interval. In his paper he reported 66 cases so treated.

MAYER stated he had been his privilege to see these cases reported by Brettaner and also quite a number of others which he had not seen fit to include in his report, because he was not aware of some of the conditions presented. Some of these cases were patients of his own. In following out the treatment of these cases, occasionally a young woman would come to his office with intranasal difficulty and naturally being interested in the question of painful menstruation, he elicited from some of them that they had suffered a great deal, and following treatment of the nasal conditions he was able to benefit them, so that his own statistics which he hoped to publish later would be more favorable than those of Brettaner although it must be said that he put his patients through a very severe test and did not accept his conclusions until he had seen the patients themselves.

As to amenorrhea, he had had several young girls who had not menstruated at all for three or four months, but after applications to the nose, menstruation became established.

DUDLEY asked if he understood the author of the paper to say that this cauterization treatment of the nose should be used in all cases in which there was neither pelvic nor nasal lesions. In other words, if examination of the pelvis and of the nasal passages

was found negative, would he then empirically cauterize?

BRYSON stated that one of the chief objections he had to this method was the indefiniteness in regard to the kind of dysmenorrhea and the condition of the nose. As he understood, there had been no study made of the kind of dysmenorrhea to be helped. There were no lesions of the nose except during the menstrual period or when congestions occurred during the menstrual period and they were usually regarded as a result and not as a cause of something and when women had pain in their breasts every month, the breasts were not treated thinking that would cure any disturbance in the pelvis. There were a good many kinds of dysmenorrhea, one of which had not been described, namely nervous dysmenorrhea. He was willing to concede that the treatment outlined by Brettaner would help patients who had this form of dysmenorrhea.

MAYER reported that he had found many cases of serious local irritation in the nose where the central nervous system seemed to be in state of aggravation or irritation as a result with phenomena in other parts of the body being created, and when that irritation in the nose was relieved the other symptoms or phenomena disappeared.

BRETTANER, in closing said, in answer to Dudley's question, that he would by all means touch the nose in the absence of any pathological condition in the nose and the pelvis. He would do so as an experiment, as it could do no harm.

Murphy. Description of Murphy Method of Abdominal Hysterectomy. *Surgical Clinics of John B. Murphy* 1913, 2, No. 2.

By Surg., Gynec. & Obst.

Having occasion to perform hysterectomy for essential hemorrhage, Murphy described his method, which originated ten years ago and which he is convinced has many advantages over the usual methods. By the anterior route there is danger of injury to the ureters, also of secondary hemorrhage from slipping or loosening of a mass ligature.

The technique of the posterior operation follows: After aseptic preparation and with the patient in the Trendelenburg position, a vertical incision 5 to 8 inches long is made through the inner border of the sheath of the left rectus. The fibers of the muscle are displaced outward with the handle of the knife and the peritoneum divided on the slant between two forceps. The uterus and adnexa are examined to determine the amount of adhesions, etc. The peritoneal cavity is protected by laparotomy pads. Adhesions, if any between uterus and surrounding structures, are separated. Control of the uterus is secured by a large volsellum forceps a corkacrew which is inserted deep into the upper portion of the myometrium. The uterus is drawn out with its posterior surface uppermost. Long, heavy hysterectomy clamps are now applied to the broad ligaments close to the uterus, the blades extending

down to the corporocervical junction, but not including the uterine arteries. There is no danger of injuring the ureters in this step if care be taken to place the ends of the clamps in direct contact with the uterus, above the level of the arteries. If the tubes are diseased, they are removed with the uterus by dividing the mesosalpinx before applying clamps to the ligaments. If healthy, however, their uterine ends may be included in the forceps and both tubes allowed to remain. In patients who have not reached the menopause, the ovaries, or at least one, should always be retained. Even when both ovaries are diseased, it is possible, by resection, to preserve a portion of one or of both. The broad ligaments are divided with the scissors $\frac{1}{2}$ inch to the inner side of the clamps and the uterus, which is now liberated from its lateral attachments, and is rotated down and forward. This brings the posterior surface well into the field.

A transverse incision is made with the scalpel into the posterior wall of the uterus at the corporocervical junction, and the cut edge of the peritoneum secured with artery forceps. This incision is directed forward and slightly down as far as the cervical canal, and then little up and forward toward the bladder until two thirds of the anterior portion of the cervicocorporal muscularis is divided. The vesicellum is then placed on the cervix and firm traction made. The uterine arteries peel away from the muscularis, come into view on each side and are secured with forceps before they are cut. If not plainly visible no time is spent looking for them. From the level of the canal the incision is continued through the cervical tissue, the operator drawing the uterus forward as he proceeds and rolling it away from the anterior peritoneum and bladder. In this way peritoneal flap is formed sufficiently large to cover the cervical stump. If the arteries are not clamped before they are divided, the assistant grasps them when they begin to bleed while the operator continues his incision. Once the uterine artery is exposed on either side no further cutting in lateral direction should be done. The ureter always runs just to the outer side of the artery. Each uterine artery is ligated with No. 1 plain catgut, and the hemostats removed. The wedge-shaped gap in the cervix is closed with interrupted catgut sutures, which approximate the cut surfaces but do not include the peritoneum.

The broad ligament stumps may be treated in two ways: (1) By ligation *en masse* which is exceptional with Murphy. (2) By ligation of the individual vessels. The latter he considers preferable. When the mass ligation is used, it should be tied in the crease produced by the clamp, for the following reasons: (1) The compression of the clamp forces out all the fatty and areolar tissue, leaving nothing but vessels and peritoneum in its grasp. (2) The clamp acts as an angiotribe by injuring the intima of vessels and thereby favoring clot formation. (3) The ridge of tissue between the crease and the cut edge of the ligament prevents the ligature from slipping.

Commencing with the broad ligament stump on one side, a purse-string of catgut is inserted around it and the stump buried beneath the peritoneum. The same suture is used as continuous Lambert, to approximate the anterior vesico-uterine flap to the posterior edge of peritoneum. When the broad ligament stump on the opposite side is reached, it is buried in the same manner. By this continuous stitch all abraded surfaces are completely buried and nothing is exposed but the line of suture. Blood-clots are removed by dry sponging and the pads are counted as they are taken out.

The sigmoid is turned down and placed over the line of suture, in order to prevent the omentum from becoming adherent. This is of the greatest importance in all pelvic operations, as the omentum, fixed in this situation, may give rise to much suffering afterward. After drawing the omentum over the small intestine, the abdomen is closed by suturing separately the peritoneum (making the usual ectropion of its cut edges), fascia of the rectum, and skin. Heavy catgut is used for buried sutures, and horsehair for skin. Figure-of-8 silkworm-gut sutures are then inserted through the skin and fascia, to insure against separation of the wound in case the catgut is prematurely absorbed, and to obliterate dead spaces. Under the figure-of-8 stitch is placed a small gauze sponge to act as a buffer preventing transverse necrosis of the skin.

The advantages of the Murphy method are as follows: 1. The tumor and uterus can be removed about as readily and as rapidly as an ordinary ovarian cyst, the average time for the entire operation being fifteen to thirty minutes. Most of the time is consumed in covering the abraded surfaces with peritoneum. 2. Danger to the ureters is reduced to the minimum by rolling, instead of cutting the uterus out of the surrounding connective tissue, following the lines of cleavage. 3. There is practically no danger of secondary hemorrhage, as each vessel is ligated separately. L. J. MURPHY.

ADnexAL AND PERIUTERINE CONDITIONS

Gossel and Masson. Neuro-epithelioma of the Ovary (Névro-épithéliome de l'ovaire). *Rev. de Gynéc. et de Chir. abdom.*, 1912, 11, 1.
By Journal de Chirurgie.

The authors report a curious case of ovarian teratoma which from the appearance and character of the cells seemed to be formed entirely of nervous tissue. The patient, aged 50 years, was operated on by Gossel, partial hysterectomy being performed and an ovary diagnosed as cystic, removed. The patient went into collapse and death from shock followed eight hours after. The tumor which was the size and shape of a 'turkey' egg and covered by hardened tunica albuginea and some cortex, consisted of eight small cysts about which there was a copious mass of cords of greater or less thickness which were richly anastomosed. The fact that there were no new-formed blood vessels and

that the tumor derived its blood supply only from the vessels pre-existing in the ovarian stroma, prove that this is not sarcoma. These facts, together with the character and location of the cysts, point to its being an epithelioma. The arrangement of the cells in rosettes and their transformation into fibres was typical. The rosettes were pathognomonic, being exactly like those found in the medullary cord of the embryo both cytologically and histologically. They were identical with certain endodermal cysts frequently found in teratomata in general and especially in the complex dermoid cysts of the ovary.

The authors think their specimen which contains indisputable endodermal cavities is composed largely of young cells which reproduce the conditions found in the embryonal nervous tissue when the neuroblasts and neuroglia cells are beginning to be differentiated. They propose to classify this as an embryonal neuro-epithelioma. The exact origin of this tumor is hard to find. The normal ovary contains sympathetic nerve elements. The nervous elements indispensable for the origin of the tumor were of course typical and might be the remnants of some embryonal rest or inclusion the other parts of which have entirely disappeared, due perhaps to the invasion of nervous elements. GROSSER LARRY

Moritz On the Nature of the So-Called Ligaments of Mackenrodt. *J. Obst. & Gynec. Br. Emp.* 9 3, xxiid, 35. By Surg. Gynec. & Obst.

Moritz has cut sections at various levels and in different directions of female pelvis, fixed and hardened in formalin soon after death. These he has traced in series and has also examined microscopically some sections of foetal pelvis. In no section did he find a separate area of tissue with definite insertions as described by Mackenrodt, nor is there a weak small center of areolar tissue between the folds of the broad ligament. It is artificial and wrong to define the lower limit of this as different from the upper. It is obviously an anatomical error and misleading to describe as a separate entity a few bands artificially separated from the remaining parametric tissue.

CARRY COLLESTONOV

EXTERNAL GENITALIA

Spaulding Vulvo-Vaginitis in Children. *Am. J. Dis. Child.* 9 3, 845. By Surg. Gynec. & Obst.

This is report of the work done in the Children's Hospital in Boston under the direction of Lucas. The purpose of the article is to emphasize the following five things:

1. The prevalence of the gonococcus as an etiologic factor in cases of vaginitis and the unreliability of bacteriological examination in all stages.

2. The total duration of the disease including the long periods of latency.

3. The importance of the disease on account of the serious complications and sequelae.

4. The inefficiency of treatment at the best.

5. The consequent importance of prophylaxis both at home and in the hospital.

Etiology. There is a wide difference of opinion as to the per cent of cases of vulvo-vaginitis in infancy and childhood caused by the gonococcus. The bulk of opinion, however, seems to be that most of the cases are due to this organism.

As to the source of infection it would seem that most cases are infected in the hospital and schools and that there is a direct carrying of the organism from one child to another by the "unclean hands," by thermometers, toilets, baths, etc. Although many have thought that after a prolonged period of freedom from the disease the recurrence was due to a fresh infection, Spaulding is not convinced of this. Recurrences occurred in her series at 4, 6 and 8 months and even a year to a year and a half. The average total duration of the disease in 26 cases was a year and 8 months. Several children who came to the clinic when it started 2 1/4 years ago were later treated for recurrence.

Complications. The following complications have been observed in 74 cases: proctitis, 6 cases; cystitis, 5 cases; arthritis, 4 cases; pelvic peritonitis, 1 case; inguinal adenitis with suppuration, 1 case; vulvo-vaginal abscess, 1 case; ischio-rectal abscess, 1 case.

Treatment. The directions usually given to the mother in the treatment of these cases are as follows:

A vaginal douche of quarts of saturated solution boric acid three times a day and the installation of argyrol 5 per cent, or another silver salt, 1:1000 into the vagina three times daily. Gonococcic vaccine once a week beginning with doses of 50 million and increasing 5 million up to 400 million.

The vaccine treatment is believed to be of some value in shortening the course of the disease. Auto-genous vaccine together with gonococcic vaccine has not given favorable results. By way of prophylaxis the author recommends the three most important items of routine which have been carried out in the Babies Hospital of New York: (1) Vaginal smears are made once a week throughout the hospital period. (2) Individual thermometers are maintained as well as individual bottles of petrolatum for lubricant. (3) The disinfecting of "unclean hands" in going from one case to another is carried out.

The arrangement is recommended which is carried out in Chicago at the Juvenile Home, and at the children's venereal ward at Cook County Hospital. The following conclusions are drawn:

1. That all cases of vaginitis with persistent discharge, which at any time has been profuse are due primarily to the gonococcus.

2. That the disease may extend over many years, during which time there may be many recurrences and the period of latency may at least be as long as 8 months.

3. That vulvo-vaginitis in children, although it may remain a local disease is liable to the same complications as seen in adults.

4. That the most efficient treatment does not insure permanent cure.

5. And, finally that physicians should realize the importance and prevalence of the disease and institute strict preventive measures, both in hospitals and in private practice.

CLYDE G. G. UZZE.

Ward: Operation for the Cure of Rectocele and Restoration of the Function of the Pelvic Floor. *T. Am. Gynec. Ass.* 10, 3, May.

By Surg., Gynec. & Obst.

This operation according to the author is especially applicable to cases of large rectocele. The conditions present in a rectocele were the same as in cystocele. There was true hernia or prolapse of the rectum just as in the bladder. Likewise the bowel had been enlarged and pouches by distention, so that there existed an actual increase in size of the gut similar to the condition at the base of the bladder in cystocele. The same principle was applied in this operation to cure the rectocele as was employed in the modern radical operations for the cure of cystocele: the rectum was completely separated from the entire posterior wall of the vagina and was placed higher up in the pelvis.

The author described the operation and gave the technique used by him in perineorrhaphy.

MISCELLANEOUS

McDonald: The Treatment of Leucorrhoea Due to Gonococcus Infection. *Am. Med.*, 913, xix, 57.

By Surg., Gynec. & Obst.

The essentials in treatment are free drainage and germicidal applications. Drainage is obtained by the electric thermocautery (fine pointed loop at red heat) or 20 punctures of the cervix are made about one third of an inch in depth in the middle of the menstrual mouth. This method gives free drainage to the cystic collections and it is usually necessary in rare cases to repeat the operation, at most three times. Douches of 1:1000 of the 50 per cent oily solution of chlorometakresol are given and applications of tincture of iodine by swab are made to cervix and by probe to the ducts of the glands. After the puncture wounds are healed an alkaline douch of soda bicarb. (oz.) and soda sulphat. (dr.) to two quarts of hot water is used. Along with the above, general hygienic methods are carried out.

ROBERT CART.

Polack: The Conduct of Gynecological and Obstetrical Operations in the Presence of Acute Chronic Endocarditis. *T. Am. Gynec. Ass.*, 9, 3, May.

By Surg., Gynec. & Obst.

Polack in summarizing his experience in gynecological operations, concludes: That pelvic

conditions, necessitating operation, may be done after proper cardiac preparation. 2. That the cardiac symptoms, blood pressure, and the functional activity of the liver and kidneys were the only indices of when it was time to operate. That these cases should always be seen and treated in conjunction with competent internist. 4. The operation should be rapid, bloodless and done under combined local and general anesthetic morphine, novocaine, ether and oxygen. 5. That the Trendelenburg posture should be used only until such time as the field might be properly isolated, when the patient might be gently lowered out of it. 6. That phlebotomy should be done promptly on signs of right heart engorgement. 7. That post-operative dietetics must be voided. 8. That morphia was the mainstay in these patients.

Krömer: Etiology and Treatment of Pyelitis in the Female (Entstehung und Behandlung der Pyelitis beim Weib). *Deutsche med. Wochenschr.* 91, xxvii, 481.

By Zentralbl. f. d. ges. Gynec. Geburtsh. u. d. Gynäk.

After giving historical data Krömer enters into the etiology and agrees with Stöckel that during pregnancy an ascending form of cysto-pyelitis almost always is present. This is contrary to the French investigators, who accept a hematogenous etiology. Retention of urine is necessary for the establishment of the first attack of pyelitis. Reasons for this view are: (1) pyelitis frequently arises on the right side corresponding to the dextroversion of the uterus during pregnancy; (2) ureteral obstruction is followed by urinary retention, then bacteriuria and finally pyuria; (3) relieving the urinary retention by making the ureter passable causes a disappearance of all the signs of the infection; (4) after injury to the ureter or secondary ureteral necrosis, the corresponding kidney sooner or later becomes diseased by an ascending pyelo-nephritis. According to these viewpoints, the treatment must be directed so as to render the ureter passable. This is effected by the patient turning or lying on the opposite side, by ureteral catheterization and by irrigation of the pelvis of the kidney with disinfectants. Based on a series of cases, Krömer recommends the careful irrigation of the pelvis of the kidney. These measures, however, are only of benefit for each attack of pyelitis, permanent results after renal pelvic irrigations are rare. For recurrent cases he highly recommends vaccine treatment. He had three brilliant results amongst five cases thus treated. Finally he discusses the hematogenous origin of pyelitis after severe postperal infections, angina gastro-enteritis and colitis. Lymphatogenous infections after retroperitoneal phlegmons of the pelvis were also observed.

RUDEBAUER.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Engelhard Psychoses of Pregnancy and the Influence of Pregnancy on Existing Psychic and Neurologic Diseases (Over Gecomplicteerd zwang en des invloed der Gestatieperiode op reeds bestaande psychische en neurologische ziekten). Nederl. Tijdschr. Verlosk. en Gynaec. 9 3, xvi. By Zentrabl. f. d. ges. Gynaek. u. Geburtsh. u. d. Grenzgeb.

After a detailed description of fifty histories of the disease from the Utrecht clinic and critical discussion of the literature concerning pregnancy psychoses the author arrives at the following conclusions. The causes for psychoses of pregnancy may be hereditary taint, an infection or exhaustion. A definite cause can usually not be demonstrated. Severe psychic disturbances are found in eclampsia after recovering from the coma. These at times assume the character of a true psychosis on account of the influence of an infection—the insufficient excretion of the toxines. A connection between the appearance of the psychoses and the retention of urine can usually be proven. Psychoses during labor arise from psychic predispositions, toxines or hypersensitiveness. These psychoses have an important forensic significance, just as painless labor does. Artificial interruption of pregnancy in psychosis is wrong and dangerous. It is negative in its results as a prophylactic measure for the prevention of psychoses. Psychoses complicated with an albuminuria of pregnancy must be considered as a contra-indication for the induction of an abortion. The treatment of pregnancy psychoses must be as conservative as possible. During labor and before complete dilatation interference should be rendered only if symptoms are present which point to threatening eclampsia. STRAUZ.

Harrison Myoma and Pregnancy: the Therapeutic Indications. Va. M. Semi-Monthly, 9 3, xvi, 60. By Surg., Gynec. & Obst.

In this article the author discusses the complications and treatment he believes should be considered in cases of myomata-complicating pregnancy. These tumors cause actual earnest danger only in few cases and these may be considerably diminished by a cautious clean management of the labor and the puerperium. On the other hand Bland-Sutton believes that the life of the woman is in jeopardy not only so long as the fetus is in the uterus but during the expulsion also.

Myomata situated in the lower uterine segment while usually offering an obstacle to the birth of the child, may be drawn upward during labor and leave the pelvis free. Operative intervention is indicated when the tumor is fixed so as to offer an obstruction

to the passage of the child. During the pregnancy the author advises expectant treatment as a rule but when something definite must be done, he suggests interruption of the pregnancy or Caesarian section at term. The former is often very difficult for the placenta may be firmly adherent or the fetus may be passed after a long time during which fever and degeneration of the myoma with sepsis may follow. Myomectomy does not offer a perfect solution of the difficulty for a small myoma left at the time of operation may grow to large also before the termination of the pregnancy. When labor sets in he says, our attitude must still be an expectant one, but when it is seen that the tumor does not move upwards with the unfolding of the cervix, Caesarian section should be done. Once, for the forcible attempts to drag the child through the pelvic canal past the fibroid may so injure the tumor as to cause it to slough. If the fibroid be single it may be enucleated, or if multiple, or the case be septic and the child dead, total extirpation is the operation of choice. If the case is aseptic, supra vaginal amputation is the operation of choice and is less dangerous and easier but as Bland-Sutton suggests, there is greater danger to the ureter in total extirpation.

As a general rule, if the birth is accomplished without myomectomy the puerperium should be allowed to reach its completion before operation is undertaken. If the location of the tumor is such that it interferes with contraction and retraction of the uterus the hemorrhage following labor may be so severe as to necessitate irrigating the cavity of the uterus with tincture of iodine or to pack it with gauze. Greater dangers than these are offered by gangrene of the polyp or submucous myomata as they descend into the vagina. The death of the myoma that is known sometimes to occur is easily understood if we remember that it has grown while the blood-supply of the uterus was very good, but during the puerperium when the larger part of this supply is suppressed the fibroid contains more tissue than can be supported on this limited blood-supply. C. D. HOWARD.

Hauer Myoma and Pregnancy (Myom und Schwangerschaft). Klin.-therap. Wochenschr. 9 3, xx, 37.

By Zentrabl. f. d. ges. Gynaek. u. Geburtsh. u. d. Grenzgeb.

Menstruation appears earlier than usual in myomatous patients. However the writer does not believe that this early appearance is caused by the myomata, as these tumors have hardly ever been found in girls before puberty and myomata grow too rapidly. He concludes that girls who menstruate

4. That the most efficient treatment does not insure permanent cure.

5. And, finally that physicians should realize the importance and prevalence of the disease and institute strict preventive measures both in hospitals and in private practice.

CLIFFORD G. GRACE.

Ward Operation for the Cure of Rectocele and Retention of the Feculent of the Pelvic Floor. *T. Am. Gynec. Ass.* 9, 3, May.

By Surg. Gynec. & Obst.

This operation according to the author is especially applicable to cases of large rectocele. The conditions present in a rectocele were the same as in a cystocele. There was true hernia or prolapse of the rectum just as in the bladder. Likewise the bowel had been enlarged and pouches by distention so that there existed actual increase in size of the gut similar to the condition at the base of the bladder in cystocele. The same principle was applied in this operation to cure the rectocele as was employed in the modern radical operations for the cure of cystocele. The rectum was completely separated from the entire posterior wall of the vagina and was placed higher up in the pelvis.

The author described the operation and gave the technique used by him in perineorrhaphy.

MISCELLANEOUS

McDonald. The Treatment of Leucorrhoea Due to Gonococcus Infection. *Am. Med.* 9, 3, 115, 57. By Surg., Gynec. & Obst.

The essentials in treatment are free drainage and germicidal applications. Drainage is obtained by the electric thermocautery (fine pointed loop at red heat) so puncture of the cervix are made about one third of an inch in depth in the middle of the menstrual month. This method gives free drainage to the cystic collections and it is usually necessary in rare cases to repeat the operation, at most three times. Douches of 1000 of the 50 per cent oily solution of chlorometakresol are given and applications of tincture of iodine by swab are made to cervix and by probe to the ducts of the glands. After the puncture wound are healed an alkaline douche of soda bicarb (or) and soda sulphat (dr) 2 to 4 quarts (hot) is used. Along with the above general hygienic methods are carried out.

EDGAR CARY

Polak. The Conduct of Gynecological and Obstetrical Operations in the Presence of Acute Chronic Endocarditis. *T. Am. Gynec. Ass.* 9, 3, May. By Surg., Gynec. & Obst.

Polak in summarizing his experience in gynecological operations, concludes that pelvic

conditions, necessitating operation, may be done after proper cardiac preparation. 2. That the cardiac symptoms, blood pressure, and the functional activity of the liver and kidneys were the only indices of when it was time to operate. 3. That these cases should always be seen and treated in conjunction with a competent internist. 4. The operation should be rapid, bloodless and done under combined local and general anesthesia, morphine, novocaine, ether and oxygen. 5. That the Trendelenburg posture should be used only until such time as the field might be properly isolated, when the patient might be gently lowered out of it. 6. That phlebotomy should be done promptly on signs of right heart engorgement. 7. That post-operative distention must be avoided. 8. That morphia was the mainstay in these patients.

Krömer. Etiology and Treatment of Pyelitis in the Female (Entstehung und Behandlung der Pyelitis beim Weibe). *Deutsche med. Wochenschr.* 9, 3, 1918, 433.

By Zentralbl. f. d. ges. Hyg. u. Geburtsh. u. d. Gynäc.

After giving historical data Krömer enters into the etiology and agrees with Stuekel that during pregnancy an ascending form of cysto-pyelitis almost always is present. This is contrary to the French investigators, who accept a hematogenous etiology. Retention of urine is necessary for the establishment of the first attack of pyelitis. Reasons for this view are (1) pyelitis frequently arises on the right side corresponding to the dextroversion of the uterus during pregnancy (2) ureteral obstruction is followed by urinary retention, then bacteriuria and finally pyuria (3) relieving the urinary retention by making the ureter passable causes disappearance of all the signs of the infection, (4) after injury to the ureter secondary ureteral necrosis, the corresponding kidney sooner or later becomes diseased by an ascending pyelo-nephritis. According to these viewpoints, the treatment must be directed so as to render the ureter passable. This is effected by the patient turning or lying on the opposite side by ureteral catheterization and by irrigation of the pelvis of the kidney with disinfectants. Based on a series of cases, Krömer recommends the careful irrigation of the pelvis of the kidney. These measures, however, are only of benefit for each attack of pyelitis. Permanent results after renal pelvic irrigations are rare. For recurrent cases he highly recommends vaccine treatment. He had three brilliant results amongst five cases thus treated. Finally he discusses the hematogenous origin of pyelitis after severe puerperal infections, angina, gastro-enteritis and colitis. Lymphatogenous infections after retroperitoneal phlegmon of the pelvis are also observed.

RECHENBERG.

In the first patient, the first labor which was a premature birth in the seventh month, ran a spontaneous course. Transverse position was present in each of the following seven labors. In six cases the author performed version, and once another physician. All the children are alive. The patient again became pregnant, for the ninth time. In the second case besides the deformity of the uterus a narrow pelvis existed with conjugata vera of 7.5 to 7.8. Podalic version and extraction was performed by different physicians during the 1st, 2d, 5th, 7th, and 8th labor on account of a transverse position. All the children were still-born or were subjected to craniotomy. In two other labors of the same patient breech presentation existed and these children were also still-born. To conform with the wish of the patient I have living child. Von Klein performed a Cesarean section with relative indications at end of the tenth pregnancy as soon as the first labor pains occurred. Transverse position again was present. On account of the distal bicornuity of the uterus the author did not make median longitudinal incision but a transverse incision over the fundus of one of the horns, and as the extraction of the child was impossible he also incised the fundus of the other horn including the septum. The upper end of the septum was 3 cm. thick and its lower border reached 1 cm. down from the surface of the fundus. The incision in the septum was closed by a few interrupted stitches to stop the hemorrhage. The uterus was closed with two rows of sutures. The patient was discharged as cured on the 14th day. The child lived.

In both cases a uterus bicornis supra-semiseptus existed. The author considers the deformity of the uterus as the cause of the transverse position. In the second case he performed bilateral salpingectomy to induce sterility. The unfavorable termination of the former labors was due to the narrow pelvis. The prognosis of labor with transverse position and bicornuate uterus is not unfavorable if a physician is called in time. On the other hand a patient in whom this complication has been diagnosed during former labor should immediately call a physician at the commencement of labor as in such cases the transverse position is often repeated.

ANASTAS

LABOR AND ITS COMPLICATIONS

Cragin. Under what Conditions should Uterine Inertia be Treated by Artificial Delivery? T.

4w Gyne. Abt. 93 May

By Surg. Gyne. & Obst.

Cragin said uterine inertia was of greater importance in the second stage of labor especially if the membranes were ruptured and the pressure of the uterus came directly upon the child, than in the first stage yet in several Cesarean sections performed during a prolonged first case the presence of meconium in the liquor amnii and the marked slowing of the fetal heart prior to the operation had con-

vinced him of danger to the fetus from uterine inertia even during the first stage of labor.

Uterine inertia associated with fetal heart sounds indicating danger to fetal life was one of the first types of inertia indicating artificial delivery. His plea was for skilled, artificial assistance in the delivery before the mother and child were exposed to these dangers.

There was one condition not usually classed as uterine inertia which the writer called attention to before closing his paper. It was the long delay which sometimes intervened between the rupture of the membranes and the uterine contractions of the first stage of labor. Patients sometimes presented themselves to the hospital with a history that their membranes had ruptured three, four or even five days before their labor began. An unfortunate experience several years ago in which the fetal heart ceased before the labor was completed and a study of the temperature charts of a number of these cases, convinced him that in many particulars they resembled cases of uterine inertia during actual labor that there was fetal danger from interference with fetal circulation from prolonged pressure, and that maternal morbidity was common from sepsis, if not from bacteremia. For these reasons he had made it a rule in recent years, both at the Sloane Hospital and in his private practice, to introduce an elastic bag into the cervix if uterine contractions had not started at the end of twenty-four hours from the time of the rupture of the membranes. The elastic bag as a rule not only brought on uterine contractions but lessened the further escape of the liquor amnii and the results both fetal and maternal had seemed to justify the procedure.

DAVIS stated, in discussion, that from the accumulated experience of the profession it seemed pituitrin came into practical competition with strychnia. Opium and ergot and Edgar had given very valuable hints as to the danger of pituitrin. All recognize the fact that in many cases opium to the point of lessening nervous excitability and securing rest, was of the greatest value in bringing about the development of the physiology of labor and all were aware of the very frequent experience of the unexpected and rapid delivery of multiparae to whom had been given opium to secure rest, and how frequently the woman surprised herself—and us most of all, when we were caught napping—but certain it was, opium in the general experience of the profession as the one sedative which was stimulant to the ganglion which controlled the action of the uterus. As regards strychnia in comparison with pituitrin it seemed to him the difference between the two might be stated in this way that strychnia given in moderate doses as a physiological stimulus to the ganglion supporting and maintaining uterine action while pituitrin, and especially as indicated by Edgar was matter of more brief and more stormy result and hence much more uncertain and personally he had not felt that he could substitute pituitrin for the use of strychnia as a physiological

stimulant or aid in labor. The use of ergot was thing to be carried out with great caution, and he still adhered to the belief that ergot should be given upon the emptied uterus only and in Cesarean section one might lay aside ergot entirely oftentimes with advantage. As to contracting the dilating bag with the bougie as an inducer and promoter of labor, in connection with strychnia or pituitrin, it was of advantage in that it decidedly stimulated the mucous secretion of the cervix and was less apt to alter the mechanism of labor.

POŁAK stated that no discussion of pituitrin in this society should go out without sounding a word or two of warning. He had had within the last three weeks a case of rupture of the uterus from the use of pituitrin. He had also seen within a month a case that was thrown into such violent uterine contraction that anesthesia and morphia had to be used to control the spasm of the uterus consequently from his experience, which was comparatively limited (only 76 cases) he had drawn some conclusions that were only tentative: that pituitrin had little or no place in the first stage of labor; that it was dangerous so far as our experience was concerned unless there was local knowledge of the pelvis, particularly in outlet contractions and particularly in borderline contractions.

Furthermore, in order to get the best use from pituitrin we should have dilated or at least a dilatable cervix, because injuries to the cervix had been just as Edgar had stated. He had found, furthermore, that it had no value, as far as his limited experience had gone, in establishing uterine contraction in emptying the uterus in cases of incomplete abortion.

Another observation he had made was that where it was used in the third stage labor he had gotten secondary relaxation in a sufficient number of cases to warn him that when he used it in the third stage it should be combined with ergot.

BYROND stated there was a mild form of inertia which in primiparae meant a great deal perhaps in some cases, due to general exhaustion from muscular exercise of the prolonged first stage, or want of rest and exhaustion of the nervous system. He had seen many cases in which there was inertia of the cervix. The patient had an irritable condition of the parts, and would have if the first stage of labor was unusual in its length. At one time, when investigating the function of the membranes in labor with a view to preserving them, he got in the habit of using opium frequently and in these cases the administration of opium would give rest, particularly as it acted in contrast to the advice so often given to women to get around and try to stimulate labor.

DICKINSON said that between foreign and American obstetrics there was one great distinction. Kerr read very big paper before this society on waiting or long delay in the second stage of labor. The German practice of delay in the use of the forceps or the infrequent use of the forceps as com-

pared with the American was most striking. It submitted the particular type of American woman neurotic, easily tired from vigorous muscular exercise and anxiety was a type to which the pituitary extract particularly applied. It was most fortunate to have had so lucid an exposition of the exact therapy of pituitary extract as Edgar had given.

STROMBERG said one of the most important points in these three papers was that of calling attention to the dangers of pituitary extract. Enthusiastic reports sent around by the manufacturers led to the promiscuous use of pituitary extract with many unfavorable results. His own experience has been very much the same as that of Edgar. The pituitary extract was so uncertain in its action in the first stage of labor that it was not to cause such bad results in the cervix that the cervix, it seemed to him, should either be fully dilated or dilatable, and was many times, but where the diagnosis was positive that there was no obstruction to rapid delivery delivery could be brought about promptly. Therefore, the question of diagnosis was important in the management of these cases as well as the indication for treatment. An accurate diagnosis should be made before any line of treatment was followed out.

GREEN said that these radical papers were going out to influence general practitioners, and in the subsequent discussion something ought to be said as to what should be done in the way of prevention of uterine inertia. The average woman who was going to have a baby should be trained to go through the ordeal just as good athletic trainer would teach men on a football team. She should be trained for the condition, and if this was done in large proportion of cases the inertia would disappear. Furthermore, there were a great many women who were benefited during the last two months of pregnancy by systematic treatment with iron, arsenic, and strychnia. He gave strychnia in small doses to women in the last two months of pregnancy. If a woman was in pretty good shape physically was not tired, if she had a fair nervous system, she would go through labor pretty well if she kept moving around.

WEXLER said that in cases of uterine inertia associated with rigid, elongated, or hypertrophied cervix, he believed that the important measure of treatment was vaginal Cesarean section, and not abdominal Cesarean section unless there was contraction of the pelvic outlet.

As regards the use of pituitrin, he had been using it in the Presbyterian Hospital, Chicago and his experience harmonized with that of Edgar although the speaker had not used it perhaps in as many cases as had Edgar.

Harrison Uterine Inertia Its Treatment. I
Am. Gynec. Soc. 912, May

By Surg. Gynec. & Obst.

It is important to recognize the distinction between primary and secondary inertia. In primary inertia before the rupture of the membranes, the

conditions obtaining are comparable to those existing during pregnancy. Active intervention is not indicated. Patience on the part of the physician is essential and his aim should be to inspire the patient with courage and hope. She should not be confined to bed. After the escape of the liquor amnii, active intervention is indicated only if danger exists for the mother, child, and then the metrorrhagia is preferred. Vaginal hot water douches are liable to cause septic infection from injury to the epithelium. After dilatation the author prefers podalic version followed by extraction. When the head is resting on the perineum the forceps are indicated, especially in multiparae with distasteful of the recti. The Kristeller Doederlein method of expression has a limited application. With reference to drugs exciting uterine contraction, ergot should never be exhibited until after the birth of the child and delivery of the placenta. The author has had no experience with pituitary extract and its range of application is still *sub judice*. Some authorities have recently advocated the employment of Caesarean section in certain cases of primary inertia when the mother's life is in jeopardy. Primary inertia *per se* does not furnish the indication for such a procedure. Obstetric resources are amply adequate without recourse to surgery.

PURPERIUM AND ITS COMPLICATIONS

Ward Th. Treatment of Puerperal Sepsis at the Sloane Hospital for Women. *Am. J. Obst., N. Y.* 9, 3, 1911, 454. By Surg., Gynec. & Obst.

In the event that a puerperal woman delivered at the Sloane develops a temperature she is considered at first as a case of *metrorrhagia* until it is otherwise demonstrated, and is treated as follows. On the first rise of temperature above 100° F. she is given a hot saline vaginal douche every 4 hours and an ice bag is placed over the fundus. Ergot is not given in such cases. If fever lasts for 24 hours or more, hot saline uterine douches are given after a culture has been taken. In case temperature still is elevated after 24 hours and other symptoms supervene the uterus is palpated under anesthesia, and foreign material is removed digitally, and saline douche of the uterine cavity is made. If case the woman has been delivered elsewhere, so that the condition of the uterine interior is unknown, then this exploration is made at the onset of infection symptoms. Thereafter daily intrauterine saline is given as long as there is a cloudy return of the douche water in the presence of temperature. Should fever disappear or the discharge stop intra uterine manipulation is immediately discontinued. When infection has invaded other parts, manipulations and examinations are reduced to the minimum and nothing active is done except to incise when collections of pus form, vaginally when possible. In all cases supporting treatment is instituted, nutritious diet given and the patient isolated. The head of the bed is elevated and ice is applied to the abdomen.

Ward says that nursing of the infants is always stopped as soon as sepsis is diagnosed. At Sloane case has sepsis in case a uterine temperature persists for week (unless the case dies earlier) and in case fever subsides earlier than this it is called *metrorrhagia*. H. has observed no undoubted benefit from sera or vaccines. N. SMOOT HEAVY

Findley Treatment of Puerperal Thrombophlebitis. *J. Am. Gynec. Ass.*, 9, 3, May By Surg., Gynec. & Obst.

Findley reported ten cases, reviewing the literature on the subject. With this review of his recent personal experience with puerperal thrombophlebitis, together with the expression of opinions of many of the workers in the field of obstetrics, he submits the following for consideration. The Trendelenburg operation is surgically correct in theory, but as a practical proposition it is a questionable procedure. The difficulties involved in the making of an accurate diagnosis before opening the abdomen are as yet insurmountable. Furthermore, it is not possible to judge with accuracy the extent of the infection within the veins or elsewhere after the abdomen is opened. One cannot rely upon the sense of touch to locate with certainty the limits of a thrombus nor can we judge with certainty the presence or absence of pus within the veins. Failure to find bacteria in the general circulation gives no absolute assurance of the localized character of the infection, nor can physical examination of the lungs and other viscera exclude the possible presence of metastatic foci. 3. It is in direct violence to the rules of practice to traumatize tissues in the immediate neighborhood of virulent infection.

In reviewing the reports of cases the author has been seriously impressed with the boldness with which some operators violate this time-honored principle of surgery. If the infected veins are not dissected out, have they not locked the thief in the stable when they do no more than ligate above the zone of the infection? and if the infected veins are not dissected out do they not incur serious hazards in the way of disseminating the infection? Furthermore, the risk of dislodging thrombus in exploring the pelvic veins should be reckoned with. 4. It is physical impossibility to ligate all the veins leading from the genital organs and unless all channels are blocked there can be no assurance of checking the infection. Among the ardent supporters of the operation are those who would ligate the lower end of the vena cava and both spermatic veins, claiming that the collateral circulation can be depended upon to re-establish the return circulation. Is this not an argument in favor of the contention that the venous channels leading from the infected uterus cannot be wholly controlled by ligatures? 5. The physical resistance of all cases of puerperal infection is far below par, a fact which makes us cautious in adding further to their burdens. We might well rob them of the little resistance they possess. 6. Little dependence can be placed upon

serum and vaccines in these cases. 7. Whatever may be the view on the question of ligation of veins or upon the administration of serum and vaccines, all are agreed that the body resistance may be supported by fresh air and nourishing food.

MISCELLANEOUS

Tausig Factors in the Formation of Skin Striations During Pregnancy. *T. Am. Gynec. Ass.* 93, May. By Surg., Gynec. & Obst.

Tausig said only thirteen out of sixty primiparae are free of skin striations. Skin striations occurred most frequently at several points and usually made their first appearance about the 6th or 7th month of gestation. In girls older than 20 years of age they were decidedly more pronounced and more frequently found than in older women. Obesity particularly rapid decrease in weight during pregnancy predisposed to the formation of striae especially those about the breast and thighs. Lack of abdominal support during pregnancy as in those who wear no corsets favored the formation of abdominal striae. On the other hand the tense and inelastic skin in which no striae are found is also some extent a factor in subsequent abdominal relaxation. At any rate abdominal muscular relaxation and abdominal skin striation went hand in hand. Perineal tears had apparently no relationship to skin striation. Finally the persistent employment of proper skin massage could in the great majority of cases prevent the formation of the slightest skin striations.

Fry Demonstration of the Infant Pulmotor with Remarks on Its Use in the Treatment of Asphyxia Neonatorum. *T. Am. Gynec. Ass.* 93, May. By Surg., Gynec. & Obst.

The author said the introduction of the infant pulmotor into obstetric practice was so recent that he had not been able to collect any statistics of the value of the apparatus. Certainly it was vastly superior for resuscitation to the ordinary methods of artificial respiration. He had had no opportunity to test it in serious forms of asphyxia, the so-called asphyxia pallida, but in the livid form it had acted promptly and resuscitated the infant in about five minutes. Edgar said he had used the apparatus six or seven times in both asphyxia pallida and livida. The results were good, much better than he had anticipated because at first he was doubtful of the value of the apparatus. Communication from Rochester reported the use of the pulmotor in five cases. In Case 1 it was unsuccessful. There was no heart action detected when the infant was born. In Case 4 it was likewise unsuccessful, but there was no mention of the heart action. In Case 5 the infant was born with marked asphyxia, but cardiac pulsations were detected. The labor had been prolonged but was terminated by mid-forceps application. The ordinary methods of resuscitation were employed for ten minutes without results. The

pulmotor restored life in ten minutes and the infant lived. Case 3. Pronounced asphyxia of the infant with heart action. After failure to resuscitate, the infant breathed after three or four minutes of the application of the apparatus. Case 5. A labor of thirty-six or forty hours duration was terminated by a difficult, high forceps application. The infant had deformities of the extremities and had been born thirty minutes before the use of the pulmotor. The heart action was slow, eighty to ninety per minute. After forty to sixty minutes use of the pulmotor the infant breathed, but died 2 hours afterward. The condition of the infant suggested strongly the existence of intracranial pressure. Efforts to resuscitate the infant should not be abandoned as long as there was any heart action.

In discussing Fry's paper Deegan stated that he believed he had the first Dräger infant pulmotor that came into this country. It was more than a year ago. At first he looked upon the machine with more or less skepticism, thinking it was more of a plaything than anything else, but having used it for some time he found there was some value to it. They had one at the Manhattan Maternity which was ready for use in every operative case. They had had several cases which illustrated the value of the machine, but as Fry had said, the inspiratory force should not be run up to 5. If thought or centimeters of force as sufficiently high. Although he had made no autopsies to prove it, he believed there was some likelihood of rupture of vessels when they ran the inspiratory force up to more than 10 or 15 cm.

Polak stated that he would like to ask Fry if the pulmotor could be attached to the ordinary oxygen tank in case of emergency. Fry replied that they had an extra attachment so that it could be put on an ordinary oxygen tank.

Deegan Etiology, Symptomatology and Surgical Treatment of Meningeal Hemorrhages in the New Born. (*Etiologie, symptomatologie et traitement chirurgical des hémorragies méningées du nouveau-né.*) *Arch. ges. d. chir.* 913, 4. By Zentralbl. f. d. ges. Chir. u. Geburtsh. u. d. Gynäc.

This paper discusses, principally the surgical therapy of meningeal hemorrhages in the new-born. The profuse hemorrhages are generally productive of alarming symptoms. It is very important to study carefully the cases of hemorrhage producing trifling symptoms as these may be followed by irreparable injuries. The correlation between labor and meningeal injuries has probably remained unrecognized to date because so long a time sometimes several years, may elapse before any disturbances are manifested. MacCallister first called attention to the concurrent meningeal cicatrices with Little's disease. Hotzels suggested lumbar puncture in all asphyxiated new-borns. Meningeal hemorrhages could then be found much oftener. Etiologic factors are narrow and rigid vagina, all abnormalities that prolong labor, as malpositions and instru-

mental extractions (these according to Gowers, produce hemorrhages in 50 per cent of the cases) the size of the child's head, the degree of ossification and like conditions. The hemorrhages are also found in cases without trauma e. g. in classical Caesarean sections, due to the fragility of the blood vessels so common in hereditary taints (syphilis, alcohol). We must differentiate between spontaneous hemorrhage and that produced during labor. Hemorrhages in children are nearly always venous and occur most frequently in the subarachnoid veins. During labor the veins are torn either on account of injuries or increased blood pressure. Such hemorrhages are most frequent in babies with soft, poorly ossified skulls that give poor protection to the underlying brain, secondly in cases of rapid or sudden blocking or damming up of blood in the veins which is mechanically produced by asphyxia. These are the spontaneous hemorrhages. A third etiologic factor is doubtful, viz., can the sudden burning and emptying of the bag of waters produce hemorrhage by negative pressure (or absence of counter pressure)?

The symptoms vary in a marked degree. Some times the babe is cyanotic when borne. If treated scientifically at once, breathing is established but the child does not cry and, if not stimulated artificially, breathing soon ceases and the child dies.

In other instances, resuscitation is successful and the child cries but remains passive and will not take to the breast nor swallow. After 3, 4 or 5 days symptoms of skull compression, epileptic convulsions, even Jacksonian epilepsy, rigidity, tremors or convulsions appear. Occasionally such symptoms will appear after a few days (up to the 6th day Murphy) in a babe that appeared to be the picture of health. The pulse drops to 90 and the respiration is superficial, rapid and often irregular. The temperature chart is fairly accurate in the prognosis of these cases. If in the first few days, slight but persistent elevation of temperature is observed, the babe will live in most cases provided there is no infection. Elevation of temperature may be the only symptom of cerebral pressure. Hemorrhage near the sulcus Rolandi produces the first circumscribed symptoms, monoplegia, often motor disturbances, tremors, convulsions, and finally affects only one of the lower extremities. The general health is impaired early. If the condition begins to improve, the life of the patient is no longer threatened, but later mental defects may appear. Permanent defects at the base of the frontal parietal lobes are followed later by epilepsy. Little disease strabismus, deafness, defects of speech, facial paralysis, and many other pathologic conditions. It is very important that an early diagnosis of intra-cranial hemorrhage be made as the success of therapy depends upon immediate action.

Formerly treatment consisted of the application of leeches to the processes mastoidei, baths, chloroform and ether inhalations, and later lumbar puncture which does not always produce the desired

results. Finally the advice to operate came from America. Chipault suggested trephining the skull and incising the dura mater. The operation is simple and of short duration. Cushing was the first to perform this operation in 1903. He had nine such cases, of which four were absolutely successful. The operation was done between the second and the twelfth day. Three times it was necessary to do the bilateral operation. Technical details of the operation are described by the author. Seitz modified the operation by opening into the dura mater at the lowest point possible. Simmonds avoided trephining by making a short curved incision from the large fontanelle along the anterior superior border of the parietal bone. After dividing the dura, the blood clots were removed. As a preparatory treatment he gives a injection of 30 cm. salt solution several times. This procedure was successfully employed by Gilles (Toulouse) in a case after lumbar puncture failed. If serious symptoms occur later one can always resort to trephining. The surgeon should employ the methods in the following order: Lumbar puncture if no improvement is noticed the fontanelle incision should be made while the dura is still tense. Trephining the skull should be considered last of all.

E. ZWIRNER.

Ries. Chorionic Villi in the Uterus. *Wall 18 Years after the Last Pregnancy.* *Am J Obst. & Gynec.* 9, 2, April, 1913.

Ries in this article gives complete history and microscopic findings in a case which he operated 18 years after her last pregnancy for multiple fibroids of the uterus. Protruding from the cervix on the cut surface of the cervix of the uterus, which was removed supravaginally was a fine thread-like string, which upon dissection could be traced as far as the cornu of the uterus. Microscopic examination showed villi filled with villi which had undergone hyaline degeneration and which were covered with single layer of endothelial cells. The rest of the uterus, except for multiple fibroids, presented unusual microscopic changes. Ries draws attention to this case of benign survival of chorionic villi for so long a period as of importance in the probable explanation of chorio-epithelioma at times remote from pregnancy.

S. SPEDAT HEANEY.

Leonard. The Difficulty of Producing Sterility by Operation on the Fallopian Tubes. *Am J Obst. & Gynec.* 9, 2, April, 1913.

Leonard reviews the various proposed methods of producing sterility by operations upon the tubes and relates the reported instances of pregnancy following the various operations, reporting two cases of pregnancy occurring after ligation of the tubes. He concludes that, classically and experimentally the wedge-shaped excisions of the uterine ends of the tubes has been the most satisfactory means so far devised.

N. SPEDAT HEANEY.

Romy: The Use of Fetal Serum to Cause the Onset of Labor. *J. F. S. J. M. 1. 1. 1914, 113.*
By Surg. Gynec. & Obst.

The author reviews the experiments of Von der Heide who was the first to use fetal serum in the induction of labor and for certain cases of the uterus and reports 9 cases in which he used the serum. He followed the methods and dosage of Heide with some slight modifications to suit the individual case. The serum was prepared as suggested in Heide's original paper and injected intravenously. Although the results were negative in 4 of his cases and at least in 5 of the cases reported by Heide, he believes that it has been demonstrated that fetal serum will cause the onset of labor.

Von der Heide considers his results in reference to the onset of labor as an anaphylactic reaction. He thinks that normally the birth act is brought about by the slow transmigration of fetal substances into the blood of the mother, which give rise to the formation of antibodies—labor substances—as he terms them. Toward the end of gestation these substances are transmitted to the blood of the mother in excessive amounts. That there is a deluge of these substances is proven by the contractions which arise in the last weeks of pregnancy and also by the unusual results obtained by the injection of fetal serum in inertia."

C. H. D. M.

Paris: Hypophyseal Extract in Obstetrics (Extracto hipofisario en obstetricia). *Gac. Med. de México, México, 1913, xxvii, 24.*

By Zentralbl. d. d. ges. Gynäk. u. Geburtsh. u. d. Gynäkol.

The indications for administering the extract are atonic hemorrhages and weak pains. The experiments did not correspond and hence opinions differed, owing to the inconsistency of uterine effects that were often overshadowed by the secondary effects such as discomfort, thinnitus aurium, fear etc., and, objectively as albuminuria and even eclampsia. Unfavorable effects upon labor pains were infrequent; sometimes the uterine contractions were tumultuous or tetanic, threatening the life of the babe in utero. Rarely there occurred atonic hemorrhage an hour after labor done, no doubt, to the relaxation of the musculature following the artificial stimulation. Hamm-Rieck found stricture of the internal os resulting from the injection. Eisenbach found the results not to be uniform in consequence of the different dosages, indications and sensitiveness during the various periods of gestation. The response is greatest towards the end of gestation and almost negative during the first half. The different parts of the gland are different in their effects. Pituitary gland contains 12 gland substances in cc. dose 1-2 cc. intramuscularly. Repeat in one or more hours. If the contractions cease, become weaker or less frequent, the author gives stronger doses repeatedly. In thirty cases Eisenbach found the labor pains to be of physiologic character, never colicky nor tumultuous, though

occasionally the uterus remained tense during the interval, but never was there cause for anxiety.

The first contractions occurred 3-5 minutes after an injection, the maximal power appeared in 30 minutes, generally and decreased in another 30 minutes. Infrequently the effect lasted until labor was completed. Never were injurious effects noticed upon mother or babe. It is of practical importance that there never was anything pathological found post-partum which could be attributed to the extract. The after-pains were never specially severe. In eighteen of the author's cases, the effect was unsatisfactory in five and prompt in eleven.

Eisenbach claims this preparation to be efficacious and necessary as in numerous cases of atonic hemorrhage results were rapidly obtained. Masegosa and ergotin were resorted to in all cases and, when these failed, pituitary gland was injected with good results. The author ardently commends pituitary gland, especially when ergotin fails. Eisenbach says Pituitary gland is not infallible in producing labor pains but it is the best method available for that purpose at present. The proper selection of this extract insures favorable results in cases of weak contractions and often prevents the application of forceps and other artificial means of delivery. Abortion is not induced. The extract is specially indicated in atonic hemorrhages.

BRASILEIRO.

Edgar: Pituitary Extract in Uterine Inertia. *J. Am. Gynec. Ass., 9, 3, May.*

By Surg. Gynec. & Obst.

Edgar reported seventy cases of which records had been kept, and these cases were from two hospital services, namely Bellevue and Manhattan Maternity and from private practice. They included in the first and second stages of labor thirty-nine cases immediately after the third stage, nineteen cases in Cesarean section six cases and for the induction of abortion six cases. He drew the following conclusions: 1. Amputations or vaporizations of the drug should alone be employed, as in his experience constant results failed when the pituitary extract in bulk solution was used. 2. There were three reliable proprietary preparations of the drug now on the market all of these were used at different periods in his cases. 3. For decided action 0.4 gram of the drug was usually called for although in ordinary cases, with little obstruction, half that dose was found sufficient. 4. As the effect of the drug lasted but 30 minutes, repetition of the dose was often called for. 5. Intramuscular injection was usually satisfactory causing no local reaction or pain. Further no toxic symptoms were observed from the use of the drug even in maximum doses. 6. Pituitary extract might be combined with ergot when the action of the former failed, and with heart stimulants in shock cases, without compromising the actions of these drugs. 7. Pituitary extract had no place in normal labor; the administration should be confined in obstetrics to instances of primary and secondary inertia, to post-partum

hemorrhage and Caesarean section. In the last as a substitute for ergot. 8. The drug produced strong intermittent uterine contractions often prolonged for several minutes. He had never observed true continuous tetanic uterine contractions (tetanus uteri). 9. Although theoretically the uterine contractions were intermittent, practically in the face of resistance, the contractions approached to the continuous in character and clinically might be so reckoned with. 10. Full and even small doses of the drug in the first stage of labor had caused in his cases fatal compression of the foetus, premature separation of the placenta and deep rupture of the cervix. In the first stage or where some obstruction existed in the second stage he gave small tentative doses of pituitary extract not with complete delivery by means of the drug in view but to bring the head within easy reach of a simple forceps operation. Seven of his thirty-nine cases were thus treated. 11. Pituitary extract acted promptly and efficiently in most of the thirty-nine cases of inertia in the second and first stages. Its actions were more positive in multiparae than in primiparae. It acted better at full term than in premature cases, also better in the second than first stage of labor and when administered shortly after the spontaneous artificial rupture of the membranes.

In the eighteen cases in which the drug had been used immediately after the third stage for post-partum hemorrhage due to inertia, his results were disappointing, so much so that he considered its action here most unreliable and not as positive as the ergot preparations. In eighteen post-partum cases, he found no effect of the drug in two cases. It was necessary to use ergot in two instances, hot scotic acid douches in two more, to pack the uterus in seven cases, and in the remaining six cases only were good uterine contractions observed. 13. In Caesarean section he could not observe any advantage of pituitary extract over ergot, aside from the observation that the former acted more promptly and hence need not have been administered so early in the operation. 14. In induction of labor the drug failed to initiate contractions, but apparently initiated them after the use of gauze, the bougie or hydrostatic bag for inducing labor. His belief was that the drug strengthened already existing contractions not yet apparent to patient or physician. 15. For primary inertia in abortion cases his results with the drug were disappointing. 16. For atony of the bowel and bladder and as a galactagogue his results were frankly negative. 17. The dangers to mother and child in the indiscriminate administration of this drug for primary or secondary inertia of the first or second stage of labor must be reckoned with.

Only a few of the thirty-nine cases of inertia were frankly in the first stage of labor and these were earlier cases. The remainder were of the second stage, or borderline cases just merging into the second stage.

He considered the use of the drug in the first stage a dangerous practice, liable to cause death or deep asphyxia of the foetus, separation of the placenta, uncalculated for laceration of the cervix, and possible uterine rupture.

18. Of his thirty-nine cases of inertia in the first and second stages, he had to report two and probably four stillborn children deaths due, in his opinion, to the use of pituitary extract before full dilatation and three instances of deep laceration of the cervix requiring suture to control the bleeding.

19. He looked upon the use of pituitary extract before full dilatation or dilatability of the cervix as equivalent to the use of ergot at this time. In fact it was probably more harmful than ergot, by reason of the more powerful contractions produced and the uncertainty of its action. 20. He had repeatedly observed prolonged tempestuous contractions, when the drug was given in the face of too much resistance closely simulating tetanic contractions of the uterus (tetanus uteri). 21. The action of the drug was most uncertain. One could never predict in a given case, either from the amount of the drug administered or from the character of inertia and the obstruction to be overcome, how powerfully the drug would act upon the uterus. He had repeatedly observed both in private and hospital practice 0.5 gram of pituitary extract, half the usual dose commonly employed, produced such prolonged and powerful uterine contractions that uterine rupture was imminent and anesthesia was required to control the action of the drug on the uterus. 22. In his opinion the drug should never be employed for inertia in any stage of labor unless anesthesia was at hand for immediate use, and preparations complete for immediate operative delivery, if necessary to avoid uterine rupture. 23. Finally with due regard to its action, and possible dangers, pituitary extract was a most valuable addition to our resources for the treatment of primary and secondary inertia.

24. Finally with due regard to its action, and possible dangers, pituitary extract was a most valuable addition to our resources for the treatment of primary and secondary inertia.

25. Finally with due regard to its action, and possible dangers, pituitary extract was a most valuable addition to our resources for the treatment of primary and secondary inertia.

Robert Arsen benzol in Obstetrics (L'arsénobenzol en obstétrique). *Ann. d. med. obs.*, Par. 1913, vol. 55. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

At the fifteenth Congress of the Obstetric Society of France the author presented a review of the reports on salvarsan therapy in obstetrics. Sauvage, according to the observations of his own cases and a study of cases collected from the literature (143 cases in all) is very reserved in his opinion regarding the merits of this remedy and does not intend discontinuing the old mercury treatment. Sauvage employs the new method only in cases not benefited by the old treatment, and mentions the manifold disturbances caused by salvarsan treatment, especially its ill effects upon the liver and kidneys. Chamberlaint tabulated all cases reported to date of children treated by salvarsan therapy. The results of indirect treatment, viz., by the milk of mothers injected with salvarsan, are not at all satisfactory as in most cases relapses have occurred. Salvarsan

according to Rovsing (6 l. liters per day) is admissible. As urinary antiseptic salol in large doses is given (4 to 5 gm. daily). In spite of the presence of phenol in the urine no renal lesions or disturbances have been noted, and no miscarriage precipitated. Instead urotropin in large doses may be advised (4 to 5 gm.) especially in after treatment. The use of borovertin, beral, etc., demonstrated no better results than the above-mentioned drugs. In seven cases the patients were treated in bed on the back and not to turn on the side.

The author noted no influence from vaccine treatment tried in two cases. The great majority of acute pyelitis cases recover on this mode of treatment, though it may require several months and after repeated recurrences. Urethral catheterization in the cut stage is indicated either with or without lavage of renal pelvis, only in the presence of intense congestion, severe pain and poor general condition of the patient. Its use in the embolus type is recommended when the fever does not spontaneously disappear. With this condition as indication, Oppenheimer catheterized the ureters in three cases with excellent results, while during the acute stage he made use of the procedure but once, and then without any benefit. Lavage of the renal pelvis is uncertain permanent drainage for fourteen days is recommended. While the author does not consider nephrotomy harmless procedure when other methods fail in severe cases it must be resorted to.

KROWE.

Ertzbischhoff. The Pathological Physiology of Renal Decapsulation and the Indications and Contra-indications for the Operation. *Am. J. Urol.* 19, 3, 12, 35.

By Song. Gynec. & Obst.

The author reviews concisely the pathological and experimental work bearing on renal decapsulation, its effect on the renal tissues and the resulting physiological changes, concluding with indications and contra-indications for the operation.

He does not support Edebohls' theory of the pathology, i. e., that regeneration and proliferation of renal epithelium occurs, besides neovascularization. He points out that clinically there are often striking immediate results, such as cessation of pain and hematuria, increase in diuresis, etc. He mentions J. Boulay's theory of vasomotor change in renal vessels resulting from stretching of the sympathetic nerve-fibres in the pedicle. While Claude and Balthazard have shown experimentally that the proportion of urea and salts excreted are increased, he believes it is generally agreed that this is not due to actual increased blood supply but, according to Liffengour, is the result of lessened intravenous tension and consequent rise of arterial pressure within the kidney causing improved elimination.

The ultimate effects, cessation of edema and diminution in amount of albumen, are not constant but heart and eye conditions are usually benefited.

There is no evidence to support the fear that future trouble may arise from the contraction of the new formed capsule or divisions about the kidney. Excepting Edebohls', there are no case reports tending to show the operation to be curative. The author believes it merely to be palliative by lessening any temporary renal insufficiency which is superadded to the nephritic lesion. It may however arrest the evolution of the nephritic process.

He mentions indications for the operation in acute and chronic cases, and discusses briefly the question of unilateral or bilateral decapsulation, and the use of renal sufficiency tests in diagnosis of the lesion.

H. BROWNE.

Pousson. Contribution to the Surgery of Nephritides (Beitrag zur Chirurgie der Nephritiden). *Berl. Klin. Wochenschr.* 9, 1, 351.

By Zentraltbl. f. d. ges. Chir. u. i. Grenzgeb.

In order to place the surgical treatment of the nephritides on broader bases in the future, it is necessary to establish the indications and contra-indications exactly. Nephrotomy removes the intrarenal tension, further it relieves the organ by the copious hemorrhage, through which microbes, necrotic epithelium blocking the urinary tubules and toxins are swept away and, finally, the various secrets are removed by the prolonged drainage of the pelvis of the kidney. The effect of splitting the kidney must be considered in both forms of acute nephritis, the toxic as well as the infectious. Surgical intervention is urgently required when lateral remedies, as diuretics, venesection, etc., fail and when in addition to fever with severe general disturbance diminution in the quantity of urine secreted takes place. Nephrotomy must be considered first then decapsulation not nephrectomy because the kidney as an excretory organ, even when itself diseased helps to eliminate toxic-infectious bodies from the organism. Among the chronic nephritides the painful forms will be the first discussed. The pain originates partially from the pressure exerted by the adhered capsule on the organ, partially from the congestion of the parenchyma produced by the morbid process. The painful nephritides are only exceptionally Bright's, more often they are caused by nephrothrombosis, inflammatory affections of the adnata, trauma, etc. Among the operations to be considered for this form of chronic nephritis preference must be given to nephrotomy, which may be combined with capsulectomy. The hematoma nephritides are characterized by being mostly partial, i. e., the process is confined to small areas of the parenchyma. The circulation is disturbed by these lesions, there is a stasis of blood in the capillaries and canals, which easily leads to rupture of the atrophic and diseased vessels. Here also nephrotomy can regulate the swelling of the parenchyma. Pousson secured more favorable results with it than with nephrotomy. The chronic nephritides, which are complicated by severe and threatening symptomatic accidents, and in which, therefore, palliative

treatment should be instituted present the three chief symptoms oedema, uremia and oliguria, either singly or in various combinations. Among 53 cases treated by operation sixty three operative deaths are to be recorded, i. e., a mortality of 4 per cent.

Of ninety cases, twenty four died after an interval of three months to five years from accidents which must still be brought in connection with the chronic nephritis or from recurrences those operated for uremia remained alive for the longest time. Sixty-six are living and were observed over larger intervals. The operative mortality is the least in patients suffering only from oedema, and the greatest when uremia and oliguria without oedema are present. A middle place is occupied by the cases with oedema and uremia, which are still favorable, compared with those presenting all three symptoms. Among the sixty-six observed for longer time, there were registered twenty-three markedly improved, twenty five improved, three slightly improved and six without improvement. The acute disturbances in the course of the disease must also be considered among the indications, as functional disturbances do not contra-indicate operative interference, while in the presence of anatomical changes an operation must be considered with great reserve. Further contra-indications are myocarditis, atheromatous degeneration of the larger vessels, and severe pulmonary phenomena. Decapsulation was carried out in the majority of cases but even here nephrectomy is justified, notably in severe uraemic intoxication. The question, whether operation (decapsulation or nephrectomy) can provoke healing of the morbid process in the kidney Pottson would answer in the negative but at any rate the relief of pressure in the organ produces compensatory hypertrophy of the uninjured areas.

KUNSTOW

Henchen Nephropexy by Suspension with Transplanted Fascia (Nephropexie vermittelst transplantierter Fäzies oder fasciälen Anhangs) *Arch f. Klin. Chir.* 93, 3, 1921.
By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

Henchen has developed a method of operation for floating kidney which obviates the disadvantages of unipolar fixation. It consists in enveloping the organ in a large non-pedicle flap of fascial lata. He employed this procedure in one case with success. The patient was a slender woman, 32 years of age. A flap 30-5 cm. was taken from the fascial lata. This flap was divided in half by longitudinal incision up to its center here a hole was cut for the hilum of the kidney. The fascial flap was then folded about the kidney and fixed by fine silk sutures. Finally the fascial flap was attached to the quadratus lumborum, the lumbodorsalis and the muscles of the posterior wall of the renal niche. The result was good and permanent, as could be ascertained at a subsequent examination.

NORDENFELD

Leguen The Clinical Value and Interpretation of the Constant of Urea Secretion (Valeur clinique et interpretation de la constante urée-sécrétoire) *J. d'Urol.* 93, 11, 1920. By Journal de Chirurgie.

Nephritis, usually of a mild type, is present in all cases of obstruction of the lower urinary tract there is also a varying degree of arterial hypertension in the blood there is an excess of nitrogen or chlorides, or both.

Leguen dwells upon the symptom-complex due to nitrogen retention in the blood, and shows the value of Ambard's constant of urea secretion and how it completes the dosage of the blood urea, and how it must be interpreted in surgical work. This constant is based on the following laws of urea excretion, as set forth by Ambard (1) When kidney eliminates urea under a constant concentration the output varies in direct proportion to the square of the urea concentration of the blood (2) when the urea concentration of the blood remaining constant, the concentration of the excreted urea varies, the urea output is in inverse proportion to the square root of the urea concentration of the blood (3) when the urea concentration of the blood and that of the urine both vary the urea output varies in direct proportion to the square of the urea concentration of the blood, and in inverse proportion to the square root of the urea concentration of the urine.

There is, therefore, in all individuals, a constant proportion between the urea content in the blood and the square root of the urea output which proportion is the constant of urea secretion. Said constant is normally about 0.070. When the power of urea excretion of the kidney is impaired, it rises and approximately reaches 0.00 in individuals having lost about half of their excreting power. These figures are accepted as basis for the clinical interpretation of Ambard's constant. Other pathological conditions lower the constant, for instance, nephritis of the dropical type (called by French authors hydrophigene) and albuminuria. Consequently a lowering of the constant is almost as important as a raising of the same and a figure markedly below 0.70 is suggestive of hydrophigene nephritis.

In renal surgery the study of the constant of urea secretion is a self guide for operative indications and contra-indications. It is particularly valuable when ureteral catheterization cannot be performed or when, after ureteral catheterization, there remains a doubt as to the value of the supposedly sound kidney or when bilateral lesions are suspected. If the constant is above 0.70 then lesions are very likely bilateral if below 0.70, the other kidney is sound and nephrectomy is indicated.

The same constant affords valuable data in the surgery of obstructions of the lower urinary tract and particularly when it comes to deciding for or against prostatectomy. Cases of prostatic hypertrophy belong to one of the three following groups (1) Those having a high constant, 0.900, or more the nitrogen content of the blood is also high—gm. or more. These patients are inoperable, at least

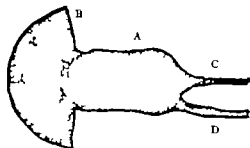


Fig. (Good)

subcutaneously administered has not yet shown satisfactory results. The maximal dose is 0.5 milligrams salvarsan per kg. of body weight. The intravenous injection is too dangerous in children. Fabre and Bourret also believe that the old mercury treatment should be continued, but recognize salvarsan as a valuable addition to medicinal agents for coping with lues. By combining salvarsan with mercury and iodine therapy, syphilis is more energetically attacked and more speedily improved. Though the children of mothers treated with salvarsan manifested no symptoms of syphilis during their short stay, the linc yet relapses occurred later, according to the investigations of Lemeland and Brisson. These observers claim that neither salvarsan nor neosalvarsan are well adapted for general practice owing to the difficulty of administration, etc. Bar records few favorable results and has had some unfortunate experiences. The most celebrated French obstetricians do not subscribe to the dermatologists' enthusiasm for salvarsan.

PARKER

Good. A New Obstetrical Rubber Bag. *Surg. Gynec. & Obst.*, 9, 2, vii, 320.

By Surg., Gynec. & Obst.

No longer can there be any doubt as to the efficacy of the rubber bag in dilating the parturient cervix. A rubber bag filled with water exerts an equal pressure in every direction, consequently it is the nearest approach to the amniotic bag of water.

The author feels that the ideal bag is one that will exert an equal pressure everywhere (pressure on both the entire cervix and the lower uterine segment) that will not displace the head, and that is easy of introduction.

Fig. shows the bag before it is filled with water. It is mushroom-shaped and has two separate compartments. Compartment A is for cervical pressure, and compartment B for pressure on the lower uterine segment. Tube C is for filling compartment A, and tube D which runs directly through compartment A, is for filling compartment B.

Fig. shows the bag with both compartments filled with water. Compartment A is 3 inches long

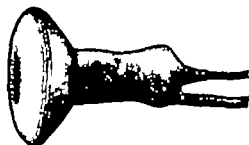


Fig. (Good)

and $\frac{3}{4}$ inches in diameter. Compartment B is $\frac{3}{4}$ inches in diameter and $\frac{3}{4}$ inch from its base to its top, thus causing but little displacement of the head.

This bag has been used in several cases with excellent results.

McDonald. Diagnosis of Early Pregnancy. *Am. Med.* 9, 2, xiv, 60. By Surg. Gynec. & Obst.

The author believes that the most important signs from which early pregnancy is to be deduced are those found on vaginal examination. These he divides into two groups. First, the congestive signs: bluish and flush of the vaginal mucosa, bluish and softening of the cervix. Second, the uterine signs, including enlargement of the uterus, softening of the uterus, intermittent terine contractions, Hegar sign, and the author's sign.

A table of 100 cases arranged in percentage order gives the frequency of the above signs in the early weeks and in which weeks they most often appear.

In the congestive or Jacroemian sign the author calls attention to the fact that the violet spot appears first on the anterior vaginal wall about thumb's breadth below the urethra. The cervical bluish appears about the tenth to twelfth week in the majority of cases. Softening occurs at about the same time and begins on the outside and extends inward.

The early enlargement of the uterus is asymmetrical in nearly one half the cases before the seventh week and only uniformly enlarged at the tenth week after the last period. The uterus takes on a soft doughy consistency with hard button-like spots in it. These spots disappear at the tenth week.

The author's sign of flexibility of the isthmus, or Hinge Sign of Pregnancy, as McDonald calls it, is present in 97 per cent of his cases recorded. Then, the bladder is first emptied completely, the fundus is brought forward with the abdominal hand. The vaginal hand presses upward and forward on the cervix, the isthmus in early pregnancy bending easily so that the uterus and cervix may lie practically side by side. Flexibility of the isthmus is in itself an expression of this sign.

EUGENE CAMP.

GENITO-URINARY SURGERY

KIDNEY AND URETER

Calc. Incrustations of the Renal Pelvis and Ureter. *T. Am. Ass. Genito-Urin. Surg.*, 93, May. By Surg., Gynec. & Obst.

The author presents four cases of incrustations with calcium salts along the upper urinary tract. In the first case these were located around one of the renal papillae. In the second, they lined the posterior wall of the pelvis, and in the third, an incrustation about one and one half inches long was present in the upper ureter and one, about three fourths of an inch long at the juxta-vesical ureter. The author starts with a brief review of the causes of calcareous infiltration, and states that the great majority of authors agree that necrosis is the prime factor in such formations. Among the predisposing influences are mentioned such diseases as typhoid fever, diphtheria, cholera, auto-intoxications, scurvy, eclampsia, gout, and diabetes. Poisons which may predispose to this disease are cantharides, corrosive sublimate, chromates, oxalic acid, aloin, glycerin, phosphorus, arsenic and vinylamine.

The rationale of the deposition of salts in the area of necrosis is not definitely established. Various theories are the presence of fatty acids with which the calcium may form insoluble soaps, and proteins capable of uniting with calcium and phosphorus, have all been advanced as determining factors.

The cases within the renal pelvis were diagnosed as renal calculus and the true nature of the lesions was only determined at operation which was nephrotomy. The author believes that nephrotomy is the operation of choice in such cases, as pyelotomy would not provide sufficient exposure to insure the complete removal of the incrustation.

The diagnosis of the ureteral cases was made on the following points. First, a faint X-ray shadow second passage of crushed eggshell like material, after manipulation with the ureter catheter third, passage of the catheter through the obstruction, relieving the patient of symptoms, X-ray shadow still persisting and finally the disappearance of the shadow after several manipulations with the ureter catheter. This seems to differentiate the true incrustation from calculus or sandy impaction.

In the treatment of the incrustations along the ureter the author mentions three procedures. First, the exposure of the ureter and opening it along the whole length of the incrustation and removing all of the material under the guidance of the eye. This procedure he believes, should only be attempted as a last resort as the chance of secondary stricture would be extremely grave and in all probability nephrectomy would have to be the final issue. The

second procedure consists of opening the ureter and by means of a small blunt curette which is introduced into the lumen, removing the calcareous material. Third, removal by means of the ureter catheter. This last procedure is believed to be the method of choice, at least it should be given a trial before more radical measures are attempted. By this method the author was able to remove completely the incrustations of the two cases reported.

Oppenheimer. Pyelitis (Die Pyelitis). *Zisch f. urol. Chir.* 93, 1, 7. By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

Oppenheimer details carefully the pathology of pyelitis after observation of 60 cases, seventy-six of which were under his care. In the vast majority of cases the coli bacillus was present in two instances a new finding was noted inasmuch as the bacterium fecalium alcaligenes was isolated. In regard to the manner of infection Oppenheimer suggests the following opinions.

If remote pus accumulation is considered to be the source of infection, the infection of the renal pelvis takes place via the blood stream. Such is also the case even when the original source of infection is unknown and where there is an obstruction of the ureter high up and the distal part of the urinary tract is found negative. In case of inflammation of the lower urinary tract (trigonitis) with changes in the ureteral ridges, esp. in lower placed obstruction to the ureter then an ascending type of infection is probably present. He details further symptomatology course and diagnosis of the various types of pyelitis the unusual gonorrheal, the pyelitis following intestinal disturbances, pyelitis as an effect of stuprum, and pyelitis of children, especially that of little girls. While ascending infection is possible Oppenheimer considers the descending type as more likely to obtain in the majority of cases inasmuch as cystitis is often absent. In cases where observed after infectious diseases. In regard to the pathogenesis of pyelitis in pregnancy Oppenheimer believes that infection is of first importance and passive congestion of secondary consequence. Therapeutically the following fundamental principles are followed.

Every cut pyelitis is to be treated conservatively unless there is some definite reason otherwise, namely by rest in bed, the use of large amounts of fluids and urinary antiseptics. Alkali mineral waters are contra-indicated rather drop doses of HCl. For the first week strict milk diet is permitted then for the next ten days milk & vegetable diet. The patient remains bed for ten days after all fever has disappeared. Forced intake of fluids

according to Rovsing (6 to 10 liters per day) is admissible. As urinary antiseptic salol in large doses is given (4 to 5 gm. daily). In spite of the presence of phenol in the urine, no renal lesions or disturbances have been noted, and no miscarriage precipitated. Instead urotropin in large doses may be advised (4 to 5 gm.) especially in after treatment. The use of borovitin, heal etc. demonstrated no better results than the above mentioned drugs. In seven cases the patients were to rest in bed on the back and not to turn on the side.

The author noted no influence from vaccine treatment tried in two cases. The great majority of acute pyelitis cases recover on this mode of treatment, though it may require several months and after repeated recurrences. Ureteral catheterization in the acute stage is indicated either with or without lavage of renal pelvis only in the presence of intense congestion, severe pain and poor general condition of the patient. Its use in the subacute type is recommended when the fever does not spontaneously disappear. With this condition as indication, Oppenheimer catheterized the ureters in three cases with excellent results, while during the acute stage he made use of the procedure but once, and then without any benefit. Lavage of the renal pelvis is uncertain permanent drainage for fourteen days is recommended. While the author does not consider nephrotomy harmless procedure, when other methods fail in severe cases it must be resorted to. Kromer.

Ertelachoff: The Pathological Physiology of Renal Decapsulation and the Indications and Contra-indications for the Operation. *Am. J. Urol.* 9, 3, 12, 38.

By Surg., Gynec. & Obst.

The author reviews concisely the pathological and experimental work bearing on renal decapsulation, its effect on the renal tissues and the resulting physiological changes, concluding with indications and contra-indications for the operation.

He does not support Edebohls theory of the pathology i. e., that regeneration and proliferation of renal epithelium occurs, besides atherosclerosis. He points out that classically there are often striking immediate results, such as cessation of pain and hematuria, increase in diuresis, etc. He mentions Jaboray's theory of vasomotor change in renal vessels resulting from stretching of the sympathetic nerve-fibres in the pedicle. While Claude and Balthazard have shown experimentally that the proportion of urea and salts excreted are increased he believes it is generally agreed that this is not due to actual increased blood supply but, according to Mongour is the result of lessened intravascular tension and consequent rise of arterial pressure within the kidney causing improved elimination.

The uterine effects, cessation of edema and diminution in amount of albumen are not constant; but heart and eye conditions are usually benefited.

There is no evidence to support the fear that future trouble may arise from the contraction of the new formed capsule or adhesions about the kidney. Excepting Edebohls, there are no case reports tending to show the operation to be curative. The author believes it merely to be palliative by lessening any temporary renal insufficiency which is superadded to the nephritic lesion. It may however arrest the evolution of the nephritic process.

He mentions indications for the operation in acute and chronic cases, and discusses briefly the question of unilateral or bilateral decapsulation, and the use of renal sufficiency tests in diagnosis of the lesion.

II. Summary

Possion: Contribution to the Surgery of Nephritides (Beitrag zur Chirurgie der Nephritiden). *Berk. Mitt. Wschr.* 1913, I, 341.

By Zentralbl. f. d. ges. Chir. I. Gernapah.

In order to place the surgical treatment of the nephritides on a broader basis in the future, it is necessary to establish the indications and contra-indications exactly. Nephrotomy removes the intrarenal tension, further it relieves the organ by the copious hemorrhage, through which microbes, necrotic epithelium blocking the urinary tubules and toxins are swept away and, finally the various secreta are removed by the prolonged drainage of the pelvis of the kidney. The effect of splitting the kidney must be considered in both forms of acute nephritis, the toxic as well as the infectious. Surgical intervention is urgently required when internal remedies, as diuretics, resection, etc., fail and when in addition to fever with severe general disturbance diminution in the quantity of urine secreted takes place. Nephrotomy must be considered first, then decapsulation not nephrectomy because the kidney as a excretory organ, even when itself diseased helps to eliminate toxic-infectious bodies from the organism. Among the chronic nephritides the painful forms will be the first discussed. The pain originates partially from the pressure exerted by the sclerosed capsule on the organ, partially from the congestion of the parenchyma produced by the morbid process. The "painful nephritides are only exceptionally Bright more often they are caused by nephrolithiasis, inflammatory affections of the adnexa, trauma, etc. Among the operations to be considered for this form of chronic nephritis preference must be given to nephrotomy, which may be combined with capsulectomy. The hematuric nephritides are characterized by being mostly partial, i. e., the process is confined to small areas of the parenchyma. The circulation is disturbed by these lesions there is stasis of blood in the capillaries and canals, which easily leads to rupture of the atrophic and diseased vessels. Here also nephrotomy can regulate the swelling of the parenchyma. Possion secured more favorable results with it than with nephrectomy. The chronic nephritides, which are complicated by severe and threatening symptomatic accidents, and in which, therefore palliative

treatment should be instituted present the three chief symptoms, oedema, uremia and oliguria, either singly in various combinations. Among 53 cases treated by operation, sixty three operative deaths are to be recorded, i. e., mortality of 4 per cent.

Of ninety cases twenty-four died after an interval of three months to two years from accidents which must still be brought in connection with the chronic nephritis, from recurrences those operated for uremia remained alive to the longest time. Sixty-six are living and were observed over larger intervals. The operative mortality is the least in patients suffering only from oedema, and the greatest when uremia and oliguria without oedema are present. A middle place is occupied by the cases with oedema and uremia, which are still favorable, compared with those presenting all three symptoms. Among the sixty-six observed for a longer time, there were registered twenty-three markedly improved, twenty five improved, three slightly improved and six without improvement. The ocular disturbances in the course of the disease must also be considered among the indications, as functional disturbances do not contra-indicate operative interference, while in the presence of anatomical changes an operation must be considered with great reserve. Further contra-indications are myocarditis, atheromatous degeneration of the larger vessels, and severe pulmonary phenomena. Decapsulation was carried out in the majority of cases but even here nephrotomy is justified, notably in severe uremic intoxication. The question, whether operation (decapsulation or nephrotomy) can provoke healing of the morbid process in the kidney Pouchon would answer in the negative but, at any rate, the relief of pressure in the organ produces compensatory hypertrophy of the uninjured areas.

RUBINOW

Hoeschen Nephropexy by Suspension with Transplanted Fascia (Nephropexie vermittelst transplantierter Bänder oder fascialen Aufhängeknäuel) *Arch f. Klin. Chir.* 93, 4, 662.
By Zentgraf f. d. ges. Chir. u. l. Grenzgeb.

Hoeschen has developed a method of operation for floating kidney which obviates the disadvantages of unilateral fixation. It consists in enveloping the organ in a large non-pedicle flap of fascia lata. He employed this procedure in one case with success. The patient was a slender woman, 35 years of age. A flap 20-3 cm. was taken from the fascia lata. This flap was divided in half by a longitudinal incision up to its center here a hole was cut for the hilus of the kidney. The fascial flap was then folded about the kidney and fixed by fine silk sutures. Finally the fascial flap was attached to the quadratus lumborum, the lumbodorsalis and the muscles of the posterior wall of the renal niche. The result was good and permanent, as could be ascertained at a subsequent examination.

NOTENBAUM

Leguen The Clinical Value and Interpretation of the Constant of Urea Secretion (Valeur clinique et interprétation de la constante uréo-sécrétoire). *J. d'Urol.* 93, 14, 289. By Journal de Chirurgie.

Nephritis, usually of a mixed type, is present in all cases of obstruction of the lower urinary tract there is also a varying degree of arterial hypertension in the blood there is an excess of nitrogen or chlorides, both.

Leguen dwells upon the symptom-complex due to nitrogen retention in the blood and shows the value of Ambard's constant of urea secretion and how it completes the dosage of the blood urea, and how it must be interpreted in surgical work. This constant is based on the following laws of urea excretion, as set forth by Ambard (1) When a kidney eliminates urea under a constant concentration the output varies in direct proportion to the square of the urea concentration of the blood (2) when the urea concentration of the blood remaining constant, the concentration of the excreted urea varies, the urea output is in inverse proportion to the square root of the urea concentration of the blood (3) when the urea concentration of the blood and that of the urine both vary the urea output varies in direct proportion to the square of the urea concentration of the blood, and in inverse proportion to the square root of the urea concentration of the urine.

There is, therefore in all individuals, a constant proportion between the urea content in the blood and the square root of the urea output which proportion is the constant of urea secretion. Said constant is normally about 0.70. When the power of urea excretion of the kidney is impaired, it rises and approximately reaches 0.80 in individuals having lost about half of their excreting power. These figures are accepted as basis for the clinical interpretation of Ambard's constant. Other pathological conditions lower the constant for instance, nephritis of the dropsical type (called by French authors hydropigenous) and albuminuria. Consequently a lowering of the constant is almost as important as a raising of the same, and a figure markedly below 0.60 is suggestive of hydropigenous nephritis.

In renal surgery the study of the constant of urea secretion is a safe guide for operative indications and contra-indications. It is particularly valuable when ureteral catheterization cannot be performed or when, after ureteral catheterization, there remains doubt as to the value of the supposedly sound kidney or when bilateral lesions are suspected. If the constant is above 0.70 the lesions are very likely bilateral if below 0.5 the other kidney is sound and nephrectomy is indicated.

The same constant affords valuable data in the surgery of obstructions of the lower urinary tract and particularly when it comes to deciding for or against prostatectomy. Cases of prostatic hypertrophy belong to one of the three following groups (1) Those having high constant 800 or more the nitrogen content of the blood is also high, 40 gm. or more. These patients are inoperable at least

temporarily until preliminary treatment and diet bring about improvement. (2) Those having low constant 120 or less these regarded as provided the low constant be not due to concomitant hydrophogenic nephritis. (3) Those having constant 100 or less these regarded as provided the blood of about 401 μ m.

Not all cases the results of the study of the constant of ure secretion must be interpreted and qualified by the parallel study of the element but a test of hydrophogenic nephritis namely albumin and disturbances of the creatinine test. The results after treatment in both known test of renal function. It clearly brings out operation contra indication, solenables to select the time of operation, benign interference, a light lith the least danger for the patient. J. T.

Fromme and R. H. Geraghty: Phenol Sulphophthalate as a Means of Phenol Sulphophthalate (Der Nervenarzt) (Berl. Klin. Wochenschr. 1934, 31, 155).

B. Zentrall. d. ges. Chir. Geburtsh. d. Gynäkolog. Fromme and R. H. Geraghty find that the intravenous injection of phenol sulphophthalate, even of test kidneys, is not to be recommended. This is on radiation the opinions expressed by Rountree and Geraghty and also the results obtained by Autenrieth and Frank. The authors use their own series on test material, the phenol sulphophthalate on 20 women with normal kidneys. While the boys mentioned contributors had 11 normal persons after 1 hour the 100 per cent, and usually 60-75 per cent of the preparation is retained. Fromme and Rountree had only 59 per cent retained after 1 hour. Only after three hours could they determine 60-75 per cent and then thus they found excretion in normal individuals. Five cases among sixty observation after repeated examination 100 per cent was never reached, and the amount excreted not below 30 per cent and 100 per cent. Inasmuch the conditions of excretion are so varied in various administration of the drug it is recommended. By this method on average 6 per cent excreted in three hours never less than 60 per cent and usually much more up to 100 per cent.

Fromme and R. H. Geraghty find that the retention of phenol sulphophthalate begins after 5 minutes when injected transcutaneously. K. von.

Strasman: The Influence of Collargol Injection on the Kidney and the Kidney Pelvis (Der deutsche Arzt in Kolonial- und Fremdländ. Verhältnisse) (Zürich. med. Chir. 1934, 30). By Zentrall. d. ges. Chir. Geburtsh. d. Gynäkolog.

After employing Voelker and von Lichtenberg diagnostic method of injecting the urinary tract, the collargol to make it solid by X-ray. Oelshöfer observed areas of necrosis of action when inflammation in case which the renal pelvis had been in-

jected under rather high pressure. Zachariassen found that one year after injecting healthy kidney, Jewell reports embolic gangrene and Eckerhorn edema of the kidney. Roudé observed fatal case of collargol poisoning in patient with haemorrhagic diathesis resulting in parenchymatous haemorrhages from the stomach, bowel and lungs with bleeding into seral cavities. Microscopic examination showed necrosis of the mucosa of the renal pelvis and infiltration of the underlying medullary tubules with collargol having precipitated in small dark brown clumps. The solution had penetrated the kidney tubules and had even reached the collecting tubules under the capsule. Here and there the tubules had been ruptured. Blum describes series of injuries after collargol injection which he observed on kidneys removed post mortem and by operation. After emphasizing the fact that the investigations of Blum are not conclusive since in dead kidneys it is very difficult to distinguish between actual necrosis and cardiac degeneration, transamian endeavored to show the influence of collargol on the renal pelvis of rabbits. The ureters were ligated 4 cm above the bladder and after the ligation the same had produced dilatation the ureters were incised and cannulae inserted.

Through this the renal pelvis was injected under moderate pressure with one or two cc. of a 4 per cent collargol solution. These experiments showed that part of the collargol remained for considerable time in the renal pelvis, but some rapidly diffused through the connective tissue and by this route reached the cortex. Where the collargol had penetrated the connective tissue the cortex could not see changes in the epithelium and hold that the solution travels by the normal connective tissue spaces. Irritation of the urinary tubules could not be demonstrated. In fact, after carefully filling the pelvis the author could detect no injury to the kidney and he therefore concludes that his animal experiment justifies the opinion that the injection of collargol in proper amount and under moderate and careful pressure into the renal pelvis does not produce harmful results and in no way brings about noteworthy changes in the pelvis of the kidney. Let. strack.

BLADDER, URETHRA, AND PENIS

Woolsey: Three Unusual Cases of Rupture of the Bladder (T. Am. Surg. Ass. 1934, 31, 116). By Surg. Omer & Ober.

The usual cause of rupture of the bladder is the violence of pelvic fracture, is injury to full bladder. Rupture of the bladder has not been fully and then the rupture is extraperitoneal. In some cases there is no history of trauma (idiopathic rupture) but usually there is some underlying cause such as urethral stricture, hypertrophy of the prostate, vesical calculus, or bending or overdistension or sacculization of the bladder. Apart from such cases, idiopathic rupture is rare.

Case was alcoholic. After drinking heavily he retired at midnight to his home and was awakened at 4:00 A. M. by violent abdominal pain, which proved to be due to intra-abdominal rupture of the bladder. Trauma was denied but can never be excluded in alcoholics. The rupture may have been due to overdistention with or without muscular action which may produce rupture. Alcoholism predisposes to rupture by causing rapid distention, obliterating the bladder sensibility and relaxing the abdominal muscles which guard the bladder from injury. It is a question whether the normal bladder ever ruptures spontaneously without the presence of pathologic changes.

Case was alcoholic but not drunk. History of trauma or previous bladder trouble. Sudden onset six days before, with symptoms of appendicitis, nausea and vomiting, pain and tenderness in the right lower quadrant, etc. The previous, similar, slighter attacks. When seen condition was very poor, constant hiccoughs, poor pulse, etc. There was mass in the right lower quadrant which was found to be due to a large quantity of ammoniacal purulent urine situated retroperitoneally. The X-ray showed no stone and cystoscopic examination revealed a transverse rent behind the right ureter mouth. Urine was alkaline and passed mostly through incision for some time. No sign of ulcer in bladder. The appendix as normal. The patient made a slow but perfect recovery and has remained well since—4 years.

In Case 3 the bladder as full but the trauma was indirect, being due to a fall from the first floor fire escape while asleep. There was no pelvic fracture. The rupture was extraperitoneal, but some urine was in the peritoneal cavity though no peritoneal test could be found. Only part of measured amount of fluid was injected, and returned by catheter.

This procedure is seldom necessary and also is unwise, unless followed by operation at once if rupture is present. The danger however is due to the catheterization rather than the injection of fluid. The chief danger of infection is from an infected urethra. Sterile urine does not cause peritonitis, but if it has no free outlet it may become decomposed and cause irritation.

Catgut is preferred to silk for suture. Trendelenburg position is very valuable in suturing tear in bladder. Bladder drainage by permanent catheter is preferable, unless there is infection of the urethra. The first case died of pneumonia on the fourth day the others recovered.

Van Dem Th. Radical Treatment of Congenital Diverticulum of the Bladder (*Die radikale Behandlung angeborener Blasendivertikel*). *Beitr. z. Hist. Chir.*, 9, 3, 1901, 320.

By Zentgraf, I. d. ges. Chir. u. L. Greengabe.

The author reports case of large diverticulum in the posterior wall of the bladder in man 55 years old. The patient had hematuria for 6 years,

dysuria for three months and retention for two days. Was operated on without further examination on a diagnosis of prostatic hypertrophy. Through the supra-pubic incision a diverticulum 14.5 cm. long was discovered, the true nature of which was determined after opening the peritoneal cavity. The diverticulum was drawn out by means of forceps, tipped over towards the bladder and removed. Recovery good. Histological examination confirmed the diagnosis of atretic congenital diverticulum of the urinary bladder. Fifteen cases of radical extirpation of diverticula of the bladder were collected by the author. There were ten cases of diverticula of the anterior or lateral wall of the bladder without a ureter in the wall. For the extirpation of these the extravascular route is indicated. In three cases the location was the same but the ureter coursed through the wall of the diverticulum. These were operated on by the combined extra and intra-vesical route. In only two cases, treated radically as the diverticulum on the posterior wall and the other case was the only one that was operated on by the purely transvesical method.

Von Luesenroth.

Kelly and Lewis. Skiagraphic Demonstration of Vesical Tumors. *Surg. Gynec. & Obst.* 9, 3, 1911, 308.
By Surg., Gynec. & Obst.

As a rule, tumors of the urinary bladder offer as little resistance to the passage of the X-rays as do the normal parts; consequently no matter how large the tumor, a skiagram made of the unprepared bladder with its contained growth will show neither bladder nor tumor.

The bladder shadow is easily obtained by injecting air, water or any of the less permeable media, though this method will not satisfactorily show the boundaries of the contained growth. It is then necessary to resort to slightly more complicated method of procedure.

The first illustration showed a large papilloma of the bladder. A suspension was made of bismuth subnitrate, gum tragacanth, and water. This was shaken up and rapidly run into the bladder and the radiogram taken at once.

The bismuth evidently settled from the emulsion and filtered into the interstices on the irregular surface of the growth. As a result of this precipitation the cauliflower-like outline of the tumor is beautifully shown. The mass is conglomerate of large growths. About the tumor is seen a dark zone, which represents the remainder of the bismuth suspension. The gray area above it is accounted for by the presence of air or water.

In the second case the authors deal with vesical papilloma. In this instance it directly overlies the internal meatus of the urethra.

Here instead of bismuth suspension 4 cc. of 5 per cent silver iodide emulsion was injected into the bladder. About half the amount injected was then voided. The bladder was then distended with air.

Here it was noticed that the irregularity of the

surface was not all shown. This was doubtless due to the fact that in the present instance a better emulsion as employed than before. The thick silver solution did not enter the surface cracks, and consequently but little surface detail is discovered. More important though than showing the surface outline is the clear demonstration of the pedicle of the growth. Remembering the exaggeration of the size of objects in the king stereograms, the authors were able to estimate roughly the dimension of both pedicle and tumor.

In their next case of this sort the authors propose to combine the methods of injection described, hoping to float up the tumor with the thick silver solution and display the pedicle at the same time obtaining good surface detail by the use of suspension of bluish ink.

The authors have been using silver iodide emulsion in ureteral injections as a means of the bladder for X-ray purposes. They believe that it has certain decided advantages over collargol and they have number of unusually good photographs of the renal pelvis, ureter and bladder taken by this method.

VI. Operation of the Bladder: Operation of Necessity and Expediency. *J. Am. Surg. Ass. 9 May. H. Surg. Cyne. & Obst.*

To determine the best method of disposing of the secretion of the kidney in individual in whom it is necessary or expedient to exclude the bladder remains still one of the serious problems of surgery. They say however that the modern method of operation in these cases expose the patient to greater danger from infection than is compensatory with the mitigation of it suffering considering the natural mortality of the disease is not consistent with the history of the patient or the record of the progress of surgery.

The patients under discussion may be grouped under three headings: (1) Those suffering from congenital anomalies of the bladder or urethra of character not to permit excretion with controllable urine or to free them from painful sequelae. (2) Those in whom sections of the ureter are necessarily or accidentally injured or removed during abdominal, pelvic or urological operations. (3) Those in whom malignant disease of the urinary bladder is too extensive to permit removal by partial resection of the bladder with retention of function, and those in whom gross malignant or other disease of the bladder exists but in whom the loss of power of retention and control adds to their suffering.

A modern surgeon has devised ingenious methods for making bladder the recipient of cases in the first group. For example: (1) bladder made of skin flaps. (2) the compression of the bony pelvis. (3) lowering the bladder and covering it with an anterior bony rib by freeing the sacro-iliac joints, etc. Control in such cases is rare and cystitis and infection of the kidney is common.

In the second group are those cases in which the injured ureter cannot be reunited itself or reat-

tached to the bladder the injured ureter may be reunited with the other ureter if that be present, or one or both ureters may be united to the colon. Direct drainage to the skin has been devised. These operations are done extraperitoneally the urine being collected by special apparatus.

In the third group are cases of extensive involvement in which part or all of the bladder has been removed. In the former the ureters are sometimes transplanted to the opposite remaining portion of the bladder. In the latter the ureters may be implanted into the rectum.

It would appear that the best theoretical and practical anatomical of the ureter with the large bowel is that which either permits the ureters to traverse some distance between the mucosa and the outer wall of the bowel before penetrating its lumen or that which the ureters are imbedded by the wall of the bowel for a certain distance. That method which transposes the base of the bladder to make it a part of the rectum wall is also a good one. The control against regurgitation is due to the closure of the distal end by compression in the wall of the bowel.

In eight cases of cancer transperitoneal resection of large mass of the bladder was done with transplantation of the ureter to the opposite side. In three cases of cancer the bladder was completely removed. (1) Female aged 6 ureters transplanted into rectum operation recovery died some weeks later from cerebral hemorrhage. (2) Female aged 20. The ureter was attached to the base of the urethra by the Sonnenberg method. The patient was in good health one year when she died from acute infection of the kidney. (3) Male aged 60. The ureter was transplanted into the back- (transperitoneal). The patient has been well for more than three years.

In four cases of atrophy of the ureter transplanted into the bowel no deaths.

GENITAL ORGANS

James and Abner. Seminal Calculi Stimulated by Nephrolithiasis. *Surg. Gynec. & Obst. 9 May, 1912. By Surg. Cyne. & Obst.*

That seminal calculi are a rare condition is evident on reviewing the literature. Fuller is quoted as stating that seminal calculi are stones in the seminal vesicles and are very rare and relates having met this condition but twice.

Calculi in the seminal vesicles may present the debutant clinical picture of renal stone. Irritation from seminal calculi can be transmitted to the respective kidney or lumbar region through first, either the vesicle or prostatic filament of the inferior hypogastric or pelvic plexus; the hypogastric plexus, hence through the ganglionic cord to the lumbar ganglia; or either the lumbar or thoracic and their ligament (lumbar) or through the aortic plexus, aortic-renal ganglia and renal plexus to the kidney substance (nephrolithia). Second, can be transmitted through the deferential plexus via

short route to the ganglionic cord third, the efferent filaments of the deferential plexus and the genito-crural nerve to the lumbar region fourth, irritation may travel through the vas deferens filament of the pelvic sympathetic, the spermatic artery filament of the spermatic plexus and its numerous filaments to the renal lumbar ganglia. Thus may be produced by any one of the several routes, referred pain and tenderness.

A thorough investigation of this subject has failed to procure any operative or post-mortem proven cases to report other than the following.

Male aged 33, suffered from apparent right renal colic as evidenced by severe right-sided pain, rectus rigidity frequent micturition, pain referred to penis and marked pain on palpation of right kidney.

Urinary examination Chemically negative, microscopically few erythrocytes, epithelium and phosphates. Case diagnosed as probably right renal calculi. Two days later the patient passed by urethra what he described as a slug. Physical examination at the time revealed a tender right kidney on palpation. Labor or forced exercise, excited pain in his right side. One month later physical examination evidenced the same findings.

Blood examination W B C. 7600 R B C, picture normal Hemoglobin 80, blood pressure 0. Nephrotomy advised and accepted.

Under ether anesthesia, through a lumbar incision, the right kidney was sectioned and no stone present. Ureter patulous Incision closed and the kidney drained by sutured cigarette drain. Convalescence uneventful until removal of drain on seventh day following which urine became bloody patient later passing vermiform clots from the bladder. General condition continued to grow worse, due to the acute hemorrhagic anemia and cystic tenesmus due to blood clots contained therein.

Death occurred five weeks after operation, clinically from acute anemia due to hemorrhage from the right kidney.

A topsy revealed the following findings. Right kidney pelvis filled with blood clots, one extending well up toward the cortex and continuous with an old patulous suture hole. Cortex evidenced an unhealed opening continuous with the superficial drainage tract. Left kidney ureters, and prostates negative. Vas deferens evidenced no change.

Seminal vesicle walls hypertrophied. Four calculi removed from the right vesicle, situated near the fundus, dull white in color and faceted, ranging in size from that of a grain of popcorn to that of field corn. Seminal fluid stained out many gram negative diplococci.

Chemical analysis yielded phosphate and carbonate of lime of 85% organic matter in which spermatozoa were found 5 per cent.

Pathological diagnosis

Pernicious anemia secondary to hemorrhage.

Suppurative-hemorrhagic nephritis of the right kidney

3 Chronic seminal vesiculitis with calculi formation (dextra)

4. Chronic Neksterian infection

Luis. Catheterization of the Ejaculatory Ducts
(Le catheterisme des canaux ejaculateurs) *Chirurgie*
Par 9 2, No. 7 98.

By Journal de Chirurgie.

Luis has succeeded in catheterizing the ejaculatory duct and in healing a patient suffering from vesiculitis. The following is the first case reported in literature.

In August, 012, the patient had a profuse discharge with a double epididymitis, prostatitis and left vesiculitis. He received permanganate irrigations, massage of the prostate and dilatations. In January 013, the left vesicle was still painful and could not be emptied by massage since the ejaculatory duct was blocked. By the use of urethroscope No. 26 the author was able to see the orifices of the ejaculatory ducts. He then introduced a metal catheter which penetrated easily for one and one-half centimeters into the left ejaculatory duct which was filled with oxycyanogen. He then massaged the seminal vesicle and found that it was no longer painful. The massaging expressed large purulent masses which came out at the urethral meatus. It could seem clear from the above, says Luis, that the catheterization of the ejaculatory ducts should be considered in cases where there is obstruction of the lumen with imperfect evacuation of the seminal vesicles.

The author concludes by giving the indications for and the technique used in the catheterization which requires thorough knowledge of posterior urethroscopy.

E. JEANBAU

SURGERY OF THE EYE AND EAR

EYE

Ray. Scleral Decompression in the Treatment of Intra-ocular Tension. *Am J Ophthalmol* 9: 3, 4.
By Surg., Gynec. & Obst.

Ray gives an abbreviated list of the changes in all those conditions in which the intraocular tension is pathologically increased and states that it is apparent that the essential object of treatment for the relief or cure of such cases is to permit the free drainage of the eye fluid can be obtained. Up to the present time iridectomy has been the most effective intra or extra bulbar operative measure for the relief of increased tension since MacKenzie made use of posterior sclerotomy over seventy years ago. The most lasting result following this procedure have been observed in those cases where resulting cystoid degeneration made constant leakage possible. This observation led to the advice that pieces of iris be purposely carried into the chamber in order to either insure the establishment of leakage scars. Fragments of iris may heal into the wound with but little or no source of future danger, but the consolidation of such scars might be indefinitely interfered with and thus render the eye vulnerable to bacterial infection along the spongy track. The latest advance in the treatment of glaucoma has been designed to bring about a permanent filtration area through the sclera at the extreme boundary of the tenon's chamber without incarceration of iris in the opening. This idea was first suggested by Herbert, and made use of by placing pieces of conjunctiva or fused sclera between the lips of a corneo-scleral incision, so as to prevent complete closure. Later Lagrange excised a strip of sclera after incision made well back and then covered the opening with large conjunctival flap.

The author believes, however that new era in the treatment of glaucoma commenced when Fergusson and Elliott each independently introduced the scleral trephine. A large triangular flap of conjunctiva at its base at the limbus, is dissected up and carried into the limbus corner then a millimeter trephine used to remove disc of scleral tissue at the corneo-scleral angle. Now that the extreme angle of the tenon's chamber has been entered small iridectomy is made, the conjunctival flap is replaced over the scleral opening, and the subconjunctival leakage of aqueous takes place. This technique was followed in cases of acute glaucoma with great pain and high tension to cases of glaucoma simplex, and one case of hydrophthalmos, in all of which the tension was reduced to normal and not followed by permanent rise since the operation.

The author concludes with the statement that there is no question that the only glaucomatous operated eyes that are permanently benefited are those where some leakage of the eye fluid takes place and that this desired end is most efficiently accomplished by scleral trephining. Fergusson L. N.

Verhoeff. The Effect of Chronic Glaucoma on the Central Retinal Vessels. *Arch Ophthalmol* 9: 2, 3.
By Surg., Gynec. & Obst.

Verhoeff has made careful microscopic study of serial cross-sections of the optic nerve in the region of the lamina cribrosa in thirty-nine cases of secondary glaucoma due to lesions of the anterior segment of the globe. Not thrombosis, but an endovascularitis of one or both of the central vessels, more often the vein, was found in every one of the cases. Age of the patient and duration of the increased pressure did not particularly bear direct relationship to the degree of the vascular changes, but in general it could be concluded that these changes occurred the more rapidly the older the individual.

In some cases there was complete and in two almost complete obstruction of the central artery. One section is pictured in which the cells immediately about the lumen showed very active proliferation. In almost complete obliteration from an infolding of other cases, probably here the process as more slow elastic tissues with tendency to undergo necrosis as seen to almost completely block the lumen. As result of the degeneration an inner tube was often found to be complete by separation of space filled with blood thus forming a dissecting aneurism.

The changes in the veins, subject to variation were analogous to those in the arteries. In most instances the walls were never involved and partially collapsed into the lumen. Complete obstruction of the vein as found in eight cases, three of which showed retinal hemorrhages, importance of which warranted detailed description. Bundles of neuroglia encroaching upon the walls of four veins was hitherto unrecognized coagulation which might easily have been mistaken for active proliferated endothelial cells. A dissecting aneurism of one vein, showing a branch entering the surrounding space as another unusual finding.

Isolated subchoroidal hemorrhage had occurred in four cases, with almost complete obstruction of the vein in one and of the artery in two.

Three factors must be considered to account for these vessel changes in secondary glaucoma. First, the direct action of the increased intraocular pressure on the central vascular system,

the action on the central vessels of the substances resulting from the relative stagnation of the intra-ocular fluids, and lastly the traction on the vessels produced by the receding lamina cribrosa.

In view of the fact that complete almost complete obliteration of the central vein was found in a little less than on half of the above cases, it is remarkable how infrequently retinal hemorrhages occurred and the ingenious explanation for the absence of such an expected condition is made on the ground that the artery is so often simultaneously involved and that the slowness of the process allows adequate collateral circulation in the optic nerve.

J. B. ELLIS.

Ritchie. The Management of Acute Hemorrhagic Glaucoma with Advanced Arteriosclerosis. *J. Ophth. Otol. & Laryngol.* 9, 3, 171, '06.
By Surg., Gynec. & Obst.

In this article the importance of the pathology of the disease as a whole is brought out with discussion of the treatment of the systemic condition and the local manifestations in the eye.

It is generally accepted by recent authorities that the cause of pseudotumor is the retention of the product of intestinal putrefaction due to faulty metabolism, on the tissues of the circulatory and nervous systems.

It is necessary to differentiate between hemorrhagic glaucoma and hemorrhages that occur in an eye which is already the seat of a glaucomatous process, although they are both the result of the same cause.

The general constitutional treatment is essential. Hygienic conditions must be carefully looked after. Diet of low protein character suitable for this condition should be adhered to. The urine should be examined regularly for indications of intestinal toxemia. Tepid baths with the addition of sodium bicarbonate are of benefit. Electrotherapy is of great value as are electric light treatments.

Medicinally the author follows the homoeopathic indications but speaks of the value of sodium iodide the alkaloid veratrin and the Bulgarian lactic acid bacilli (tablet form).

In the treatment of the ocular condition there is some difference of opinion as to the advisability of operative treatment but the author believes that the operations can be performed safely under local anesthetic (1 per cent solution of cocaine in combination with some of the essential oils, and suprarenal). The technique is such in any of the operations that if great care is taken the tension can be reduced very gradually.

EARLE B. FOWLER.

Denman. The Surgical Treatment of Glaucoma with Special Reference to the Substitutes for Iridectomy. *J. Ophth. Otol. & Laryngol.* 9, 3, 176, '06.
By Surg., Gynec. & Obst.

The author takes up the history and reasons for the important position that iridectomy occupies in

among the operative measures for the treatment of glaucoma, with the theories for its action, a list of the more recent operative procedures and the technique of trephine sclerectomy and cyclodialysis.

The results of iridectomy have been attributed to the part the stump of the iris plays in absorption and by widening of the filtration angle. It must be classed always as a major operation and as such it is to be excused if followed by such sequelae as astigmatism and coloboma with their visual disturbances.

The operation which will accomplish the reduction of the tension in the surest and safest manner with the least resulting deformity and leave the eye in the most nearly normal state is the one which we should choose.

In trephine excision of scleral tissue about 2 mm. in diameter is removed in the region of the limbus and the aqueous drains through the aperture under the conjunctiva. This may be done with or without peripheral or pupillary iridectomy.

In performing cyclodialysis care must be taken in the selection of the location of the incision so that the larger blood vessels may be avoided the spatula must be advanced with the point pressed firmly but gently against the sclera or it may perforate the root of the iris and enter the anterior chamber but when withdrawn will not leave a drain as the puncture in the iris quickly heals. Too great pressure forward may cause the point to enter the corneal stroma so that the anterior chamber is not drained. Properly performed the eye does not show any evidence of having been operated on there are no visual disturbances there is round normal pupil which is still susceptible to the influence of mydriatics and myotics.

EARLE B. FOWLER.

Parker. The Trephine Operation for Glaucoma with Exhibition of Patients. *Phys. & Surg.* 9, 3, 177, '06.
By Surg., Gynec. & Obst.

Parker reports two cases of glaucoma on which he did trephining operation, one case being in a patient seventy years old with simple glaucoma. R. V. 3/60, tension 75 mm. L. V. 8/10, tension 5 mm. Iridectomy done on right eye, trephining operation on left eye. Tension normal in both eyes seventeen weeks later although tension increased to 50 mm. 1000 times after operation.

Case 2 was child three years old with buphthalmos tension Right and left eye 45 mm. Results of operation not known as yet.

C. G. DANIELSON.

J. Henson. Some Points in the History and Pathology of Trachoma and New Treatment for Chronic Trachoma. *Transactions of the American Medical Association* 1906, 3, 178, 74.
By Surg., Gynec. & Obst.

Johnson discusses the history of trachoma, the effect of elevation on the disease, its characteristic features, its causes and the treatment of chronic trachoma.

In the treatment he says he has tried every method of treatment during an extensive experience of twenty-five years, and believes the method used by

The first step in the
process of the

is to take the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

the first step in the
the first step in the

edges are somewhat beveled. He finds it better to use a saw than a chisel for this purpose, as there is less possibility of injuring the periosteum, and if he follows this little precaution of first drilling a small hole the saw cannot slip.

The bone with its periosteum now being detached it is carefully immersed in a pair of forceps in a warm saline solution. It is thereupon placed into the mastoid wound as quickly as possible in such a manner that its raw surfaces come in contact with the clean granulating surfaces of the mastoid bone itself. The skin is then carefully sutured with the exception of a small orifice in the lower angle, in which he places a small piece of gutta-percha drain for a few days.

If at the end of three or four days he finds that there is merely a slight mucous or mucohemorrhagic discharge, he removes the drain and allows the opening to close entirely.

The transplanted bone acts as a bridge, and upon this rests the skin of the mastoid region. From the transplanted living periosteum new osteogenetic cells penetrate into the transplanted bone and gradually replace it by newly formed bone while union between the transplanted periosteum and the periosteum of the adjacent bony tissue also takes place.

The air space below the transplant fills up with blood clot which becomes organized and eventually replaced by new bone from the transplant so that after a time the cavity becomes obliterated.

It is important to remember that even in cases in which the bone transplant is exfoliated portions of the entire transplanted periosteum remains. It eventually produces new bone formation which fills the defect created by the operation.

In performing bone transplantation the author advises the following precautions:

(1) The post-operative mastoid wound must be free from purulent secretion and covered with healthy granulations.

(2) The wound must not be curetted or bathed with antiseptic solutions.

(3) Transplantation must be performed as

secondary operation and may be undertaken a week, ten days, or even longer after the primary operation, depending entirely on the condition of the mastoid cavity.

(4) The bone flap must be taken from the patient's own tibia in other words, an autogenous transplantation.

(5) Bone alone is insufficient; one must always take the bone with its living periosteum attached. This has been conclusively demonstrated by the experiments of Olfert as early as 1858 and confirmed later by Radzimo,sky Marchand Bonome and others, and more recently by Aurbansen. The consensus of opinion of most investigators proves that in order to make a bone transplant viable it is imperative to preserve the healthy living periosteum.

(6) The periosteum must not be injured, for if it is, the ultimate result will be doubtful. The chances of success are much greater with an uninjured periosteum.

(7) In making the bone flap one must handle it as little as possible so as to avoid injury and infection.

(8) Inasmuch as a good blood supply is absolutely essential to the successful issue of all kinds of transplantation it is advisable to make use of this method only in such cases in which good vascular bed for the transplant is present. This would exclude those cases in which there is hard, ebolized sclerotic mastoid bone.

Transplantation of the bone in mastoid surgery is a procedure which the author does not regard as a routine measure. He is of the opinion however that it is of value in cases in which there is a clean granulating wound.

In conclusion the author states that a few cases are indeed insufficient to prove the value of any surgical procedure. However he feels that the encouraging results obtained by these first attempts at solid bone graft in mastoid wound do as far as he knows the first attempt of this kind, demonstrate the feasibility of this method, and trusts that future cases will prove it of value in the post-operative treatment of mastoid wounds.

is not a cure but only part of the necessary treatment, and that it is quite necessary to attend to the local condition of the postnasal space until all the catarrhal symptoms are gone.

Of course we can account for the adenoid facies, mouth breathing, and sluggish mentality of these patients on the ground of interference with the lymphatic circulation in the brain, but we cannot always connect the general symptoms found in many of these cases with the postnasal obstruction.

The condition of the general system is as much a matter for consideration in these cases as the local condition in the naso-pharynx.

The permanency of the cure depends as much upon our ability to build up the general health, and the constitutional resistance to pathological invasion, as it does upon the removal of the local obstruction.

Contrary to the general report we have found a tubercular family history in 75 per cent of the cases of pronounced adenoid hypertrophy.

The most valuable local treatment in these cases has been the application of adrenalin chloride solution through the nose. In this way we get the action of the remedy upon the turbinates as well as the postnasal space.

In the milder cases where there was a very positive objection to operative procedure we have seen a number of cases do very nicely upon this treatment alone.

The frequency of involvement of the eustachian tubes makes it imperative that they be opened and kept open until they will stay open of themselves.

Jackson: Decannulation and Extubation after Tracheotomy and Intubation Respectively *J. Am. Laryngol. Assn.* 9, 3, May

By Surg. Gynec. & Obst.

The author classifies the different forms of laryngeal stenosis associated with difficult decannulation and extubation into the following types: panic spasmodic, paralytic, ankyrotic (rigid), neoplastic, hyperplastic cicatricial. Of the cicatricial type there are three subclasses: (a) with loss of cartilage, (b) loss of mucosa (hoarse), (c) fibrous type. To prevent panic, which is, in his experience, largely associated with nerve cell habit arising from previous terrifying asphyxia, he drives corking the canula with rubber cork without the patient's knowledge until the patient has become accustomed to breathing through the mouth, one factor in panic being that breathing through the short cut in the neck is so much easier than through the mouth even in the absence of stenosis. The spasmodic types are often dependent upon lesions which require treatment. Paralytic and ankyrotic cases are not much helped by simple cordectomy but excision of the entire larynx down to the perichondrium, beginning just anterior to the arytenoids, which must not be damaged the author has found to yield excellent results, though not so good as the voice as in cases where there is arytenoid mobility.

The removal of benign growths usually permits immediate decannulation of the patient. In papillomas however which are prone to recur it is necessary to watch the larynx and remove recurrences before they become stenotic. Removals and applications of alcohol in the intervals eventually establishes a fibrous condition of the mucosa which makes a poor soil on which papillomata will not grow.

Compression stenoses, peritracheal neoplasms, and hypertrophies of the thymus and thyroid glands are to be decannulated by external operations, thyropexy, thyrectomy, thyroidectomy or the stenosis being relieved in the meantime by a long tracheal cannula. In organic conditions outside of the larynx and neoplastic forms, it is the result of inflammation and especially of the mixed infections following specific infections such as diphtheria, tuberculosis, diphtheria, typhoid fever, etc., that produce the inflammatory deposits and cicatrizes. For these the author recommends endolaryngeal operations with forceps and knife by the direct method, and in such cases as the formation of an adventitious vocal cord. The author emphasizes his opinion that if the arytenoid cartilage and joint are not injured either by the original process or by the operation, the movement will pull out the cicatricial band and thus produce the new cord. In some instances, prolonged intubation has been used and in a few instances the operation of laryngostomy must be finally resorted to, keeping the larynx and trachea an open trough for many months until the cavity is lined with epidermal epithelium, after which plastic operation is done to close the wound. In post-diphtheritic cases, associated with hypertrophy above the intubation tube, the author recommends forceps removal of the hypertrophic tissue by the direct method. For subglottic hypertrophies, he has had excellent success with vertical lines, cauterizations, using guarded cautery knife and singeing the opposite hypertrophies. When one side is healed, the other is cauterized. This method has resulted in a cure in practically every case. The author reports twelve cases, all of which were permanently cured except one, which is still under treatment the period of treatment ranging from one week to four years. The author comes to the following conclusions:

The development of the direct method compels us to revise our opinions. A large proportion of the cases of laryngeal stenosis can now be handled endolaryngeally.

After all else has failed to decannulate, laryngostomy should be resorted to. It will cure practically every case, but the treatment may in some instances extend over five or six years. Many cases can be cured in from three to six months.

The cases in which laryngostomy has failed are those in which the cartilaginous box of the larynx, or the subcartilage rings, have been destroyed by necrosis. No stiffening is left to resist contraction. In such cases, if the loss of cartilage is great, laryngostomy is contra-indicated.

4. Laryngotomy is also contra-indicated in cases of incurable general disease such as advanced tuberculosis, tabes, disseminated sclerosis, nephritis malignancy etc.

5. General anesthesia has been the cause of more deaths in the handling of laryngeal stenosis than any other one thing. It is the author's opinion that a general anesthetic is absolutely unjustifiable in any laryngeal case associated with even the slightest degree of stenosis, unless a tracheotomy has been done and it is absolutely certain that the tube is perfectly free and clear without granulations at the lower end. Either Jackson believes that general anesthetic is unnecessary. In going over the literature of these cases, and also personal communication the author is simply appalled at the enormous number of cases of death on the table from attempt to give general anesthetic in cases of laryngeal stenosis. If the operator feels that he must have general anesthetic the intratracheal insufflation of ether by the Eisberg method, either through the tracheostomy wound or through the mouth, is safe. Care must be exercised to see that there is ample space for the return flow.

Radgrow Congenital Membrane of the Larynx.

Proc. Roy. Soc. Med. 9 3, 66.

By Surg. Gyner & Obst.

Examination of the patient, boy of six years, revealed membrane situated at the anterior commissure stretching between the cords, an opening only left in the posterior part of the glottis. There did not seem to be any interference with the respiration. The complaint was weakness of the voice. The question as to Should treatment be undertaken?

If trichino spoke of similar case the results of operation on which had been very unsatisfactory.

Duncan thought that while there was no interference with the respiration it would be better to avoid all treatment.

Powell said that the consensus of opinion seemed to be that the case should be left alone at present. If operation were found necessary he thought that the operation would be best performed through high tracheotomy and that after the removal of the web suitable silver plugs should be worn above and resting on the tracheotomy tube for a period of six to twelve months.

Grant said that the chief anxiety would be lest the child had one of the exanthemata in which case the laryngitis would be apt to be suffocative.

EARLE B. FOWLER

Abbe Malignant Disease of the Tongue and Mouth. *Med. Rec.* 9 3, 1904, 46.

By Surg., Gyner, & Obst.

In study of the records of the past ten years in his personal cases, including notes and illustrations

of 4 cancers of the tongue 15 leucoplakias, 27 sarcomas of the jaw and epiglottis 40 sarcomas of the pharynx and tonsil, and carcinomas of the mouth and cheeks besides many tumors of the lip, palate and buccal mucosa the author concludes:

Thorough surgery is still the supreme reliance in eradication of malignant disease of the mouth and an early resort to it is the patient's chief hope of cure. Radium has many interesting conquests in this field, but in advanced cases of cancer its good effect is transient. In giant celled sarcoma, it is a specific cure. The vicious causative effect of tobacco in the mouth is demonstrated. Leucoplakia has no curative remedy unless it be radium.

Papilloma and giant celled sarcoma succumb rapidly to the effects of the radium and the author regards it as a specific. In advanced cancer of the tongue of the so-called explosive type where there is great erosion and glandular enlargement, radium has controlled the process for a time, only to have the disease light up again. The action of the radium the author suspects, is due to the temporary control of the bacterial activity either by the specific bactericidal power of the radium or by hyperemia called out by the intense play of electrons in the tissue.

Tobacco either indirectly through the hot smoke coming in contact with the mucosa or the irritation of the pipe stem, or directly as from chewing, is given as the great cause of the leucoplakias and early cancerous degenerations. H. P. KUMR

Gorse and Dupulch Cancer of the Tongue in Young Subjects (Le cancer de la langue chez les jeunes sujets). *Rev. de chir.* 9, avril, 1903.

By Journal de Chirurgie.

Gorse and Dupulch report the case of a soldier, years of age who presented an unquestionable cancer of the tongue which had developed during seven months. Operation. Recurrence at the end of seven months and death without further operation. Histological examination verified the character of the tumor squamous-cell epithelioma.

The published cases of cancer of the tongue in subjects under 30 years of age number thirty. They are, therefore, rare but they are in contrast to this cancer in the adult more frequent in females. It is hardly possible to ascribe the cause of this class of patients to syphilis or chemical poisons.

The site of the lesion is more frequently on the edge of the tongue as a result of irritation by carcinoma teeth. Glandular involvement is rare. The affection is very painful with radiating pains and caries, but the general condition remains good for long time.

The only rational treatment is surgical. Survival is very short and recurrence rapid which emphasizes the peculiar gravity of this form of cancer.

J. OGDEN.

BIBLIOGRAPHY OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

NOTE.—The bold face figures in brackets at the right of reference indicate the page of this issue on which an abstract of the article referred to may be found.

Operative Surgery and Technique

The technique of injections of common salt solutions. KOTZ. *Zentralbl. f. Chir.* 9 3, 21, No. 9.

The spaltbol method of preparing anaplastic animal bodies. H. PARRIS. *J. M. St. M. Am.* 9 3, 14, 202.

Aseptic and Antiseptic Surgery

Sterilization of the skin. E. McDONALD. *Am. Med.* 9 3, 22, 67.

Chemical and statistical contribution on disinfection of the skin by tincture of iodine. FARR. *Chir. d. osp. d. la Milano.* 9 3, 200, No. 3.

Iodine disinfection of the mucous membrane of the mouth. E. SCHWARTZ. *Deutsche med. Wochenschr.* 9 3, 21, 30.

Peritoneal disinfection by means of tincture of iodine. L. L. L. *Chir. d. osp. d. la Milano.* 9 3, 200, No. 3.

Employment of bolus alba for disinfection of the hands. G. SCHWARTZ. *Zentralbl. f. Chir.* 9 3, 21, 46.

Disinfection of the hands by means of Bolus soap and Polus post after L. SCHWARTZ. *Deutsche med. Wochenschr.* 9 3, 21, 62.

Chemical experiments with rapid disinfection by chloroform. L. SCHWARTZ. *Deutsche med. Wochenschr.* 9 3, 22, 10.

Phlebotomy. Roche. new disinfectant. B. E. SCHWARTZ. *Deutsche med. Wochenschr.* 9 3, 21, 203.

Most dangerous and most common in acute infection. P. H. H. *Deutsche med. Wochenschr.* 9 3, 22, 618.

Preparation of sterile ligatures. E. M. DONALD. *Am. Med.* 9 3, 22, 165.

Safeguarding the instruments during operations. H. M. L. *Med. Theor.* 9 3, 21, 7.

The secretions of the skin. R. SCHWARTZ. *Zentralbl. f. Chir.* 9 3, 22, 205.

Anesthetics

A new ether apparatus technique of intravenous anesthesia. K. COX. *Am. J. An. M. Am.* 9 3, 12, 303.

Chloroform narcosis and diseases of the liver. W. H. H. *Deutsche med. Wochenschr.* 9 3, 12, 327.

The glands of internal secretion in case in which death is due to chloroform. J. H. H. *Deutsche med. Wochenschr.* 9 3, 12, 327.

Acute yellow atrophy of the liver in relation to revival from chloroform narcosis. Possible contribution to the harmful remote effects of chloroform. A. H. H. *Deutsche med. Wochenschr.* 9 3, 12, 327.

Narcosis with oxygen in major surgery. H. M. L. *Proc. Roy. Soc. Med.* 9 3, 21, 7.

Oxygen as an adjunct in general anesthesia. H. R. P. *Practitioner.* London, 9 3, 20, 607.

General anesthesia by the intra-cranial route. W. F. H. *Am. J. An. M. Am.* 9 3, 12, 303.

Does the test narcosis permit of determining whether subcutaneous-pontoon narcosis will be tolerated in the subsequent operation? H. H. H. *Zentralbl. f. Chir.* 9 3, 22, 205.

Researches on narcosis by scopolamine in combination with morphine, pontoon, and morphine. R. H. H. *Deutsche med. Wochenschr.* 9 3, 12, 327.

Local anesthesia by catapnoxa. L. H. H. *Deutsche med. Wochenschr.* 9 3, 12, 327.

Local anesthesia by infiltration. P. H. H. *Chir. d. osp. d. la Milano.* 9 3, 22, 205.

Spinal anesthesia. G. H. H. *Rev. med. de l'ouest.* 9 3, 21, No. 4.

Spinal anesthesia. G. H. H. *Chir. d. osp. d. la Milano.* 9 3, 22, 205.

General spinal anesthesia. J. H. H. *Zentralbl. f. Chir.* 9 3, 21, 409.

Paralysis of the wrist spinal nerve as complication of spinal anesthesia. T. H. H. *Chir. d. osp. d. la Milano.* 9 3, 22, 205.

Observations of the effect of spinal narcosis in tabetic neural crises. B. H. H. *Arch. Zuck. f. Psychiat.* 9 3, 12, 67.

Observation of phenomena resembling heart-block after ether anesthesia. V. H. H. *Med. Klin.* 9 3, 21, 303.

Venous anesthesia. I. C. H. *Tex. St. J. M.* 9 3, 12, 303.

The intra-cranial use of bromal as an anesthetic. J. E. H. *Am. J. An. M. Am.* 9 3, 12, 303.

Chemical observations concerning bromal. Z. H. H. *Chir. d. osp. d. la Milano.* 9 3, 22, 205.

Results obtained with ether in operations of slight and medium gravity. J. H. H. *Med. Klin.* 9 3, 12, 303.

Alcohol-morphine anesthesia for alcohol injection in neuralgia. W. H. H. *Chir. d. osp. d. la Milano.* 9 3, 22, 205.

Anesthesia of the brachial plexus after Katschinski method. P. H. H. *Deutsche med. Wochenschr.* 9 3, 22, 205.

Paralysis of the phrenic nerve in pleura anesthesia after Katschinski method. P. H. H. *Zentralbl. f. Chir.* 9 3, 22, 205.

Anesthesia of the joints. D. H. H. *Zentralbl. f. Chir.* 9 3, 22, 205.

On the causes and evidence of abdominal rigidity under anesthesia. J. D. H. *Chir. J.* 9 3, 22, 377.

- Warning anesthetic vapors neither useless nor falls
 cosa R. C. *Com. in Med. Rec.* 9 3, ix, 352.
 Present day method of anesthesia. W. M. BOOTHBY.
 J. Maine M. Ass. 9 3, ix, 0.
 The problems of anesthesia. CHAMBERLAIN. *Arch. méd.*
de Province Québec, 9 3, vii, 1.
 The psychologic side of anesthesia. H. R. TUCKER.
 Buffalo M. J. 9 3, ix, 447.
 Researches on narcotics. B. KISCH. *Ztschr. f. Biol.*
 9 3, ix, 399.
 Electrocardiographic studies on narcotics. A. F. HECKER
 and I. F. NOBLE. *Ztschr. f. d. ges. exper. Med.* 9 3,
 1.
 New methods of local anesthesia and general narcosis.
 WITTENBERG. *Med. Klin.* 9 3, ix, 9.
 Studies in blood pressure before, during and after opera-
 tion under local and general anesthesia. J. C. BLOOM-
 COOM. *T. Am. Gynec. Soc.*, 9 3, May. [2]

Surgical Instruments and Apparatus

- A new sutureless labial. R. W. HORNABROOK.
Am. J. Surg. 9 3, ix, 56.
 A new and improved intracanal incision outfit.
 MONTAGNA. *J. Am. M. Ass.* 9 3, ix, 896.
 Demonstration of modified and simplified apparatus
 for administering gas and oxygen without ether. A. L.
 FURBER. *Proc. Roy. Soc. Med.* 9 3, vi, 41.
 Demonstration of Ebbert's apparatus. J. W. SELL.
Proc. Roy. Soc. Med. 9 3, ix, 444.
 A fine cannula for intra-cerebral injections. JENNER.
Med. Klin., 9 3, ix, No. 1.
 A modification of Killian's hooked spatula for use in

- superior laryngoscopy. LAUTENBACHER. *Berl. Klin.*
Wochenschr. 9 3, i, No. 2.
 A new condylar. W. EDWARDS SCHENCK. *J. Am.*
M. Ass. 9 3, ix, 897.
 Aspirating tubes for the extraction of foreign bodies
 from the bronchi. BORRY. *Arch. Internat. de laryngol.*
d'otol. et de rhinol. 9 3, xxv, 10.
 A vibratory depressor. D. HANCOCK. *J. Am. M. Ass.*
 9 3, ix, 897.
 A nasal depressor for use in closing laryngotomy
 wounds. L. M. KAHN. *J. Am. M. Ass.* 9 3, ix, 897.
 The vaginal drying-pad. SCHWARTZ. *Berl. Klin.*
Wochenschr. 9 3, i, No. 2.
 An immovable ball which can quickly be attached to
 any kind of cystoscopic forceps and serves the purpose of
 immobilizing the cystoscope. MARIOT. *J. d'Urol.*, 9 3,
 ii, No. 3.
 A costal forceps for facilitating the resection of ribs.
 WILSON. *Zentralbl. f. Chir.* 9 3, xi, No. 1.
 A section hand-saw for clearing the operat. field.
 E. S. KIRKCOCK. *J. Am. M. Ass.* 9 3, ix, 897.
 An apparatus for the illumination of the field of opera-
 tion for use in small hospitals. L. PROCHOWITZ. *Zentralbl.*
f. Gynäk., 9 3, xxvii, 466.
 A useful lampstand attachment. E. M. BROWN. *J. Am.*
M. Ass. 9 3, ix, 900.
 An improved X-ray generator. S. TOURNEY. *N. Y.*
M. J. 9 3, xxvii, 648.
 A practical electric perimetrometer. M. BLACK. *Ophth.*
Rec. 9 3, xii, 15.
 An operating table for use in animal research. K.
 STEINBERG. *Ann. Surg. Phila.* 9 3, lvi, 435.

SURGERY OF THE HEAD AND NECK

Head

- A case of melanotic sarcoma of the scalp removal.
 H. W. S. LEE. *Transvaal M. J.* 9 3, ix, 205.
 Confluent tumors of the scalp sebaceous adenomata.
 PORTO. *Arch. Brasil. de med.* 9 3, i, No. 6.
 Primary actinomycosis of the cheek. ZILS. *Wien.*
med. Wochenschr. 9 3, liii, No. 3.
 Plastic surgery of the mucous membrane of the cheek.
 SCHWARTZ. *Berl. Klin. Wochenschr.* 9 3, i, 564.
 A cheek defect and its repair by plastic operation. J. S.
 DAIR. *Ann. Surg. Phila.* 9 3, ix, 56.
 A spectacular case of lipomyoma. H. C. LITTLE.
J. Am. M. Ass. 9 3, ix, 899.
 The etiology of tumor of the angle of the mouth and the
 relations between it and pleomorphic lipofibrosarcoma. K.
 IMAI. *Ann. K. Tokuo. Japanische Ztschr. f.*
Med. Sci. 9 3, No. 30.
 Autoplastic surgery of the mental region. LEFEBVRE.
Arch. gén. de Chir. 9 3, ix, No. 1.
 An unusual condition seen on men. Injections in facial
 neuralgia. COHEN. *Gaz. d. hôp., Par.* 9 3, lxxvii,
 No. 7.
 I put into the Gasserian ganglion after Haastef
 method in neuralgia of the fifth nerve. A. STOROV. *Ztschr.*
f. d. ges. Neurol. u. Psychiat. 9 3, xi, 453.
 Treatment of neuralgia of the trigeminal nerve by
 injections of alcohol in the region of the foramen rotundum,
 of the foramen ovale and of the Gasserian ganglion.
 BERNARD. *Lyon. Méd.* 1904, 1905, 1906, 9 3, xxv,
 1.
 Bupraternary parotid (a) typical treatment of typhoid.
 W. J. P. *Med. World*, 9 3, xxi, 5.

- Post-operative parotiditis. V. LIEBOW. *Berl. Klin.*
Wochenschr. 9 3, i, No. 2.
 Affections of the salivary glands resembling tumors.
 C. HANCOCK. *Beitr. z. Klin. d. Hals-, Nasen- u.*
Ohrenheilkunde 9 3, i, 220.
 Primary epithelioma of the submaxillary gland.
 TOURNEY and GIBERTY. *Bull. et mem. Soc. anatom. de*
Par. 9 3, xi, 6.
 Congenital fissures of the chin and other malformations
 in the region of the first branchial arch. GUERIN.
Beitr. z. path. Anat. u. allg. Path., 9 3, iv, No. 3.
 The treatment of karyoid associated with wide complete
 fissure of the jaw. W. KREYER. *Deutsche med.*
Wochenschr. 9 3, xxi, 559.
 An interesting case of sarcoma of the superior maxillary.
 SCHOTTENAUER. *Deutsche Ztschr. f. Chir.* 9 3, cxii,
 Nos. 3-4.
 Tumor of the superior maxillary bone. TOURNEY.
Toulon. méd. 9 3, xi, No. 5.
 Fibroma of the maxilla. L. S. KETTLEWELL. *Proc.*
Roy. Soc. Med. 9 3, vi, 53.
 Two cases of adenomatous of the lower jaw. S.
 RICH and J. HONORAT. *French chir. (général)*, 9 3,
 ii, 57.
 The literature on maxillary cyst. HANCK. *Beitr.*
Ann. Physiol. Pathol. u. Therap. d. Ohrs. d. Nase. d.
Halses, 9 3, i, No. 3.
 Hypertrophy of the lower maxillary bone. HERRN.
Progrès méd. Par. 9 3, xli, No. 3.
 Resection of three-fourths of the lower jaw by the
 buccal route and new method for mandibular prothesis.
 ALLRY. *Ann. Chir. et Gyn.* Roma, 9 3, xi,
 49. [2]

- When shall we operate for goiter? A. W. BLAIR.
Internat. J. Surg. 9 3, xxvi, 73.
- Ligation of superior thyroid for goiter under local anæsthesia: case report. L. WATSON. Old Dominion J. 9 3, xvi, 5.
- Operation for goiter. WASTHOFF. Med. Weekblad, Amsterdam, 9 3, xiv, No. 30.
- Lectures on the surgery of the thyroid gland, with special reference to epithelioid goiter. JAS. BERRY. Lancet, Lond. 9 3, cxxxv, 583.
- Surgery of the thyroid gland, with special reference to epithelioid goiter. JAS. BERRY. Lancet, Lond. 9 3, cxxxv, 668 and 737.
- The pathology of the thyroid gland in epithelioid goiter. L. B. WILSON. T. Am. Am. Physicians, 9 3, May.

- The thyrotoxic origin of Basedow's disease. J. H. JACOBSON. Ann. Surg., Phila., 9 3, lvi, 347. [10]
- The histological picture of Basedow's disease in its relationship to the clinical picture of Basedow's disease. J. OLSZAK. Beitr. z. klin. Chir., 9 3, lxxviii, 56.
- Basedow's disease. ROBERT BIRD. Schweizer Rundsch. f. Med., 9 3, xiii, 409.
- Basedow's disease following an injury. MILLER. Arch. f. Orthop. u. Mechanotherap. u. Unfallchir. 9 3, xii, No. 2.
- The treatment of Basedow's disease. RUMBO. Berl. klin. Wchnsch. 9 3, l, No. 2.
- A case of Riedel's struma which developed after thyroidectomy. H. SPOHN. Beitr. z. klin. Chir. 9 3, lxxviii, 149.
- Parathyroid insufficiency and its treatment. MORILL. Paris méd. 9 3, R. No. 5.

SURGERY OF THE CHEST

Chest Wall and Breast

- The physiology of milk secretion. E. A. SCHAFER. Med. Press & Circ. 9 3, cxlv, 306.
- Non-malignant retraction of the nipple. JAS. J. TEE. Brit. Med. J. 9 3, cx, 300.
- A case of hypertrophy of the mammary glands. W. J. GONZALEZ. Gynäk. Rundschau, 9 3, ii, 3. [10]
- A case of endobelloma of the breast in man. CAMOTTI. Gazz. d. osp. d. clin. Milano, 9 3, xxvii, No. 37.
- The operative treatment of cancer of the breast. A. DE ROULET. Am. J. Surg. 9 3, xxvii, 92.
- Review of five hundred and thirty-four operations on the mammary gland. JOHN B. DEVERE. J. Am. M. Ass., 9 3, lx, 795. [10]
- Cleidoplasty operation using the spleen as a scapula. MOLLATH. Deutsche Ztschr. f. Chir. 9 3, cxv, 60.

- The first rib excising: cervical rib. B. SAWICKI and J. SALOMONOWICZ. Przegli chir. ginek. 9 3, kl, 95.
- Epithelial tumors of the clavicle. C. KAR. JACOBOWITZ. Bull. Ass. franc. pour l'étude de cancer 9 3, 90.
- A simple dressing for the treatment of fractures of the clavicle. J. VON MÜNCHEN. med. Wchnsch. 9 3, lx, No. 9.
- The congenital absence of rib: report of case with complete absence of the left seventh and eighth ribs. C. SERRA. J. Am. M. Ass. 9 3, lx, 595. [12]
- Negative pressure in the thorax. H. VON WISM. Deutsche Arch. f. klin. Med., 9 3, cxv, 595.
- Artificial pneumothorax. M. E. LAFRAN. N. Y. M. J. 9 3, cxvii, 38.
- Artificial pneumothorax. A. KROHN. N. Y. M. J. 9 3, cxvii, 58.
- A few experiences with artificial pneumothorax. A. A. VAN DER BRUG. HINZELS. Beitr. Klin. d. Tuberk. 9 3, xxvi, 47.
- Artificial and spontaneous pneumothorax. KROHN. Beitr. z. Klin. d. Tuberk., 9 3, iv, 14.
- Pathogenesis of sudden death following treatment by artificial pneumothorax. LINDBLAD. Nordisk Tidsskrift f. Temp., 9 3, xi, No. 6.
- The uncertainties of the treatment of pulmonary tuberculosis by artificial pneumothorax: report of fatal case, with autopsy. BROWN and KILPATRICK. T. Am. Ass. Physicians, 9 3, May.
- Pneumothorax caused by the puncture of the chest. GAZZ. d. osp. d. clin. Milano, 9 3, xxvii, No. 8.

- A case of pleural empyema cured by thoracotomy. BOZZETTI. Gazz. d. osp. d. clin. Milano, 9 3, xxvii, No. 3.
- A study of empyema, with special reference to the feasibility and importance of dependent drainage. T. T. THOMAS. Am. J. M. Sc. 9 3, cxv, 405.
- The surgical treatment of purulent pleurisy. M. ROCHER. Clinique Brezelles, 9 3, xvi, 77.
- Radiotherapy of thymic hyperplasia. DUTROT. Deutsche med. Wchnsch. 9 3, xxvii, No. 2.
- Action of X-rays on the thymus and on the blood of the rabbit. ECKHART. Ztschr. f. Röntgenkunde. Radiationsforsch. 9 3, xv, No. 2.
- Status thymolymphaticus and sarcoma. RÖDTER. Berl. klin. Wchnsch. 9 3, l, No. 2.
- X-ray diagnosis of enlargement of the bronchial glands. ECKHART. Med. Klin., 9 3, lx, 336.

Trachea and Lungs

- Foreign bodies in the air passages and the esophagus. R. H. T. MAA. Med. Fortnightly, 9 3, xliii, 2.
- Some endoscopic methods. R. H. JOHNSON. Maryland J. 9 3, lvi, 33.
- My experience with tracheotomy based on 50 cases. DINGER and N. VRAAT. Arch. Internat. de laryngol., d'otol. et de rhinol. 9 3, xxv, No. 4.
- A case of foreign body in the trachea. SERRA and MEDAS. Rev. de clinic. med. de Barcelona, 9 3, xxvii, No. 2.
- Neofornations of the larynx, the trachea, and the bronchi. P. ON B. HAN. Handb. f. prakt. Chir. 9 3, 39.
- Broncho-esophageal fistula in case of aneurism of the aorta. DOMINIK. Deutsche med. Wchnsch. 9 3, xxvii, No. 9.
- Primary carcinoma of larger bronchi. C. V. WALLER. Arch. Internat. Med., 9 3, xl, No. 2.
- Asphyxiation in consequence of the rupture of tuberculous gland into the bronchus. F. OERTL. München. med. Wchnsch. 9 3, lx, 40.
- Cancer of the lung: medullary epithelioma of the pavement epithelium. HANSEN and STARR. Tölkens med., 9 3, xv, No. 4.
- Indications for operation in hydatid cysts of the lung. CHARRIER. Arch. prov. de chir. 9 3, xiii, No. 2.
- First aid in asphyxiation by direct insufflation of air. KROHN. München. med. Wchnsch. 9 3, lx, 647.
- Investigations on ventilation of the lungs in artificial respiration in man. G. LUTJERSTRAND and J. O. NILSSON. Skandinav. Arch. f. Physiol., 9 3, xxix, 149.

Operation for strangulated inguinal hernia under local anesthesia. G. R. HUBB. *Gay Hosp. Gaz.* 19 3, xxvii, 65.

Chronic inflammations of the omentum in relation to chronic appendicitis and colitis. M. HALLER. *Paris Sem.* 9 [18]

Observation of the mesenteric vessels. LAOTTA. *Pedichia Roma*, 9 3, 22, No. 3.

Gastro-Intestinal Tract

The etiology, symptomatology, diagnosis and treatment of acquired displacement and fixation of the stomach and intestines. T. R. BROWN. *T. Am. Am. Physicians*, 9 3, May [18]

Researches on pyloric spasm and pancreatic ferment in animals by means of simple duodenal catheter. HESS. *Deutsche med. Wchnsch.* 9 3, xxvii, No. 9.

Mortality of the pathological stomach studied by the aid of the radiobismuthograph. B. UOZZI. *München. med. Wchnsch.* 9 3, iv, 593.

Hæmatemesis as cause of death. D. E. CORN. *Med. Chronicle*, 9 3, ivii, 3.

Gastric arteriovenous aneurysm, case of hæmatemesis caused by arteriovenous. LAGO. *Riforma med.* N. pol. 9 3, xiii, N. 9.

Hæmatemesis caused by gastric arteriovenous. BRITTO and M. UZZI. *Gaz. d. hôp.* Par. 9 3, lxxvii, No. 30.

A case of bilocular stomach, diagnosed by radiology and operated by the procedure of gastro-anastomosis. VIGNARD. *Gaz. med. de Nantes*, 9 3, xvi, No.

Partial obstr. of the stomach. O. OSTER. *Wien. klin. Wchnsch.* 9 3, xvi, 457.

Post-operative dilatation of the stomach. H. A. DUNBAR. *N. Y. M. J.* 9 3, xiv, 502.

Carcinoma of the stomach. JAS. LAWVILL. *Edinh. M. J.* 9 3, x, 22.

Sarcoma of the stomach. G. FLEISCH. *Frankf. Zuchr. f. Pathol.* 9 3, xii, 3.

Primary cystic sarcoma of the stomach. KOWDERO. *Zentralbl. f. Gynäk.* 9 3, xxviii, N.

Pedunculated angiosarcoma of the gastric. all. ANZ. *Arch. Berl. klin. Wchnsch.* 9 3, i, 579.

Gastric epithelioma simulating neoplasm. LOSCARO. *Contr. Gaz. d. osp. d. Clin., Milano*, 9 3, xxvii, N. 36.

Successful transpleural resection of the carcinoma of the cardia. J. H. ZAJNER. *Beitr. klin. Chir.* 9 3, lxxvii, 49.

Pathogenesis of gastric ulcer: the power of resistance of living tissue to digestion. KATHEVSTED. *Arch. f. klin. Chir.* 9 3, i, No. 4.

Clinical manifestations and treatment of perforated gastric and duodenal ulcers. G. A. WITTENSTRAAT. *Deutsche Zuchr. f. Chir.* 9 3, xvi, 303.

The value of X-ray examinations as the diagnosis of ulcer of the stomach and duodenum. FRIEDENWALD and BAETJER. *T. Am. Am. Physicians*, 9 3, May [21]

The reaction of various types of gastric and duodenal strictures to milk diet and method of diagnosis of spastic stenosis structures of these organs. S. JORDAN. *Wien. klin. Wchnsch.* 9 3, xvi, 40.

The results obtained by radiographic examination of ulcer of the stomach. SCHULTEMEIER. *Deutsche med. Wchnsch.* 9 3, xxvii, No.

Ulcer of the stomach caused by X-rays. DESPLATS and BOQUET. *J. d. m. d. de Lille*, 9 3, xxvii, No. 6.

Round ulcer of the stomach and lymphadenitis. STROEM. *Deutsche med. Wchnsch.* 9 3, xxvii, No.

Ulcer of the stomach perforation of the spleen, the diaphragm and the lung as result of extension repeated

hæmatemesis, blood transfusion death. TANTOX and CARVER. *Progres. med.*, Par. 10 3, xii, No. 12.

A personal experience with gastric ulcer. A. F. BUTLER. *Ellingwood's Therap.*, 9 3, ii, 85.

Gastric ulcer: about food retention; clinical analysis of one hundred and forty operatively demonstrated cases. F. SATTINGER. *Am. J. M. Sc.* 9 3, xii, 340.

Perforation of gastric or duodenal ulcers, later cases on modern treatment drawn from histories of patients who have recovered. E. M. CORVIER. *Lancet*, Lond., 9 3, directly 600.

Perforation of ulcers into the free abdominal cavity. KA. CH. *Prag. med. Wchnsch.* 9 3, xxviii, No. 6.

Gastric ulcer—medical treatment versus operative procedure. H. SWEETHELM. *Med. World*, 9 3, xvi, 5.

Diet tables and nutrient elements in the treatment of gastric ulcer. E. GUYTAN. *Post Graduate*, 9 3, xxviii, 247.

Contribution to the treatment of perforated gastric and duodenal ulcers. L. SIEGEL. *Beitr. z. klin. Chir.* 9 3, lxxvii, 26.

Results of surgical treatment in 69 cases of plain cancer and cancer imbedded upon ulcers of the stomach. G. FAROY. *Arch. de mal. d'appar. digest.* Par. 9 3, vi, 61.

Total ablation of the stomach. U. OER. *Deutsche med. Wchnsch.* 9 3, xxvii, N. 1.

Statistics of resection of the stomach. S. WEIL. *Berl. klin. Wchnsch.* 9 3, i, 590.

Resection of the stomach. PERA. *Ugsk. f. Lager Kjøbenhavn*, 9 3, lxxv, No. 1.

Fracture of iodine larynx of the mucous membrane in operations on the digestive tube. HOLBAUM. *Zentralbl. f. Chir.* 9 3, xii, No.

Statistics of gastrostomy. WEIL. *Berl. klin. Wchnsch.* 9 3, i, No. 9.

The technique of gastro-enterostomy. JOSEPH. *Zentralbl. f. Chir.* 9 3, xii, 57.

Enterostomy or temporary enterostomy report of case. GEO. R. N. KIRBY. *Med. Fortnightly*, 9 3, xiv, 7.

A case of gastro-enterostomy which as revealed by radiography. DOUGLASS. *Arch. d'Elect. med. exp. et clin. Bordeaux*, 9 3, xvi, N. 353.

The influence of gastro-enterostomy on gastric and duodenal ulcers. L. A. BERG. *J. Am. M. Ass.* 9 3, ix, 88.

The cause and treatment of certain unfavorable after effects of gastro-enterostomy. A. F. HERTZ. *Proc. Roy. Soc. Med.* 19 3, vi, 55.

Pylorospasm. GLAUBINGER and KREUZFUER. *München. med. Wchnsch.* 9 3, iv, 583.

A case of perforating ulcer of the pylorus. E. KLOPPER. *Petersb. med. Zuchr.* 9 3, xxviii, 60.

The curability of the pylorus by cord instead of by thread. PALLA RICORDO. *Zentralbl. f. Chir.* 9 3, xii, N. 9.

A further contribution on injury of the duodenum by blunt weapon. SCHWABE. *Arch. Sachverst.-Ztg.* 9 3, xix, 37.

The frequency of perforation in duodenal ulcer; observations on seven cases, with five observations. A. J. EVANS. *Med. Press & Circ.*, 9 3, xvi, 52.

A further case of stricture of the duodenum. W. WIEBER. *Med. Klin.*, 9 3, ix, 4.

Duodenal intusussusception. P. ENCK. *Wien. M. J.* 9 3, xii, 36.

Duodenal tumors and tumors. E. HUTHMAIER. *Arch. Sachverst. Ztg.* 9 3, xix, 240.

Duodenal ulcer. KREUZFUER. *Med. Klin.*, 9 3, ix, No. 12.

- Diagnosis of duodenal ulcers. W. R. THORNTON. Tex. St. J. M. 9 3, 11, 292.
- Perforating ulcer of the duodenum. D. S. LANE. Wash. M. Ann. 9 3, 28, 99.
- Duodenotomy for removal of impacted sewing-machine needle. J. J. MCCORMACK. Cleveland M. J. 9 13, 22, 95.
- Intestinal obstruction. Clinical study of 18 cases. A. McGLAWRA. J. Am. M. Ass. 9 3, 12, 713. [26]
- Intestinal obstruction. I. A study of toxic substance produced in closed duodenal loops. G. H. WATKINS, H. B. STONE and B. M. BENNETT. J. Exp. M. 9 3, xvii, 565. [26]
- Intestinal obstruction. II. A study of the toxic substance produced by the masses of closed duodenal loops. G. H. WATKINS, H. B. STONE and B. M. BENNETT. J. Exp. M. 9 3, xvii, 567. [27]
- Report of two cases of intestinal obstruction and few points in regard to diagnosis. M. R. GRACE. Vt. M. Month. 9 3, xiv, 65.
- Intestinal invagination. PROSSER. München. med. Wchnsch. 9 3, 1, 761.
- Volvulus of the small intestine. A. LIEBOWITZ. Prager chir. Wchnsch. 9 3, 1, 90.
- A case of volvulus of the entire small intestine, of the cecum, and of the ascending colon in tenebriculus ilio-caecalis commune. F. ZAND. Dissertation, Erlangen, 9 3.
- Hemoch's peritonitis. 1th Intussusception. laparotomy recovery. S. BARLING. Brit. M. J. 9 3, 1, 659.
- Acute ileus as result of Meckel's diverticulum. A. MITSUDA. Pediatra, Napoli, 9 3, 22, 44.
- A case of ileus, caused by obliteration of Meckel's diverticulum. Bruch. Wien. med. Wchnsch. 9 3, 1, 11, 1.
- Intestinal occlusion caused by retrodeviation of normal uterus. LEROUX. J. de méd. de Bordeaux, 9 3, xiii, 10.
- A case of intestinal occlusion caused by ascariasis. W. RULAND. Therap. d. Gesam. 9 3, 1, 9.
- Intestinal occlusion caused by biliary calculus. MOLLER. Hosp. Tid. Kjøbenhavn 9 3, 1, 1, 1, 1.
- Post-operative intestinal occlusions. FRANKLIN. Gaz. d. Hosp. do Porto 9 3, 1, 1, 1.
- Intestinal occlusion operation, recovery. VALTERDE. Arch. Brasil. de med. 9 3, 1, 1, 1.
- Arterioenteric intestinal occlusion. K. BLOM. Cor. Bl. f. sch. chir. Actie, 9 3, xiii, 90.
- Congenital obliteration of the small intestine: arrest of development of the large intestine and of the terminal section of the small intestine. PIERRE. Rev. d'orthop. Par. 9 3, 1, 1.
- Paratyphoid bacillus associated with intestinal perforation. GAZDAR. Progr. med. Par. 19 3, xii, No 9.
- Gangrene of the intestines resulting from thrombosis of the mesenteric vessels. LAUREN. Bull. Soc. l. correlation d. Paradoxe d. Courrou, Sept. 9 3.
- A case of anemic infarct of the small intestine. W. R. MEYER. Zentralbl. f. allg. Pathol. u. pathol. Anat. 9 3, xiv, 97.
- Primary cancer of the jejunum and ileum. CARLSON. Hygiea, Stockholm, 9 3, 1, 1, 1.
- Vegetative adenomata of the upper section of the small intestine simulating pyloric stenosis. HARTMANN. Presse med., 9 3, xii, No 5.
- A case of cystoid protrusion of the stomas. W. MJAUSTAD. Skandinav. Anat.-Ztg. 9 3, 1, 1, 1.
- Permeability of the intestinal wall to bacteria and the protective action of the epiglottis. A. PODDAR. Rikssk. med. 9 3, xiii, 5 3.
- Post-operative treatment and post-operative complications of colostomies. PALM. Gynäk. Rundschau, 9 3, vii, 6.
- When is operative treatment indicated in chronic dyspepsia? W. H. W. TRENK. J. Am. M. Ass. 9 3, 12, 714.
- Sequelae of constipation, including autointoxication. A. J. ZUCKER. Proctologist, 9 3, vii, 1.
- A few important points in x-ray examination of the diaphragm tract. F. W. WHITE. Boston M. & S. J. 9 3, 1, 440.
- Alimentary toxicosis. WHITE, ANDERSON, SUNDAY, LANE, HARLEY and COOPER. Bos. M. J. 9 3, 1, 537. [27]
- The toxemia of the alimentary canal. V. HARTY. Proc. Roy. Soc. Med. 9 3, 1, 1.
- The consequences and treatment of alimentary toxicosis from a surgical point of view. W. ADRIENOT LAVE. Proc. Roy. Soc. Med. 19 3, vi, 40.
- Newer sections of diseases of the gastro-intestinal canal. M. L. KRAVY. N. Y. M. J. 9 3, xvii, 437.
- Fluoroscopy of the gastro-intestinal canal. E. H. SKINNER. Lancet-Clin. 9 3, 1, 1.
- The technique of gastro-intestinal radiology and the results obtained with it. HERR. Ztschr. f. Röntgenkunde. Röntgenforsch., 9 3, xv, 1, 1.
- Post-operative gastro-enteric parosis. J. T. PIERCE. Med. Rec., 9 3, 1, 1, 1.
- Obliteration of the cecum by surgical method and comment on Kohnen's article. The functional disconnection of the appendix. KAFORA. Zentralbl. f. Chir., 9 3, 1, 1. [28]
- The insufficiency of cecal anastomosis to assure permanent opening for the large intestine in cases of occluding carcinoma of the rectum and the sigmoid flexure. H. MULLER. Lyon chir., 9 3, 1, 1, 1.
- A case of tubercular ulceration of the ileum and caecum. M. F. POWER. J. Indiana St. M. Ass., 9 3, 1, 1.
- Tow and promotion of timely operation in perityphlitic inquiry concerning the preparation of the field of operation. WANDER. Med. Klin. 9 3, 1, 1, 1.
- Left high dyspepsia of the cecum associated with unusual position of the appendix. W. THORNTON. N. Y. M. J. 9 3, 1, 1, 1.
- Chronic appendicitis. KRECK. München. med. Wchnsch. 9 3, 1, 1, 1.
- Sensibility of the appendix. BALOGH. Gaz. Med., 9 3, 1, 1, 1.
- Appendicitis from the gynecological point of view. LARRO. Norsk. Mag. f. lægevidensk., 9 3, 1, 1, 1.
- Typhlitis and appendicitis. GONZALEZ. Gaz. med. d. Ser. de Espana, 9 3, 1, 1, 1.
- Perforating and gangrenous appendicitis. Intervention of urgency; recovery. CARRERA. Presse med., 9 3, 1, 1, 1.
- Two cases of appendicitis with certain post-operative complications. J. L. LOPEZ. Calif. St. J. Med., 9 3, 1, 1, 1.
- Tardy hemorrhages in appendicitis. H. von Bekt. a. klin. Chir., 9 3, 1, 1, 1.
- Bakado. sign. new symptoms of chronic appendicitis. A. F. HARTY. Lancet, Lond. 9 3, 1, 1, 1.
- Some observations on symptoms and treatment of suppurative appendicitis. R. T. LEON. Calif. St. J. Med. 9 3, 1, 1, 1.
- Appendicitis or not appendicitis. HARRY L. SCHWARTZ. N. Y. M. J. 9 3, 1, 1, 1.
- The differential diagnosis between pneumonia and appendicitis. G. F. BOWEN. Med. Rec. 9 3, 1, 1, 1.

- The appendix in the X-ray picture. M. COHEN. *Dentische Ztschr. f. Chir.* 9, 3, cxviii, 606. [30]
- The medical treatment of appendicitis. R. ROSENBERG. *Med. Rec.* 9, 3, cxviii, 530.
- Operative indications in appendicitis. KRAMER. *J. d. prakt. Med.* 9, 3, cxviii, No. 4.
- Anastomosis of the right iliac region for operation in chronic appendicitis. H. FOWLER. *Zentralbl. f. Chir.* 9, 3, cx, 345.
- Excision of the caecum and appendix. STEINHAUS. *Zentralbl. f. Chir.* 9, 3, cx, 345.
- Results of appendix ligation in rachitis. L. W. SADOWSKY. *Arch. f. kinder Anat.* 9, 3, cxviii, 377.
- Removal of neoplasms of appendix. J. W. KIRCHOFF. *N. Y. M. J.* 9, 3, cxviii, 603.
- Cold subserous appendectomy. BRIDGES and V. GARDNER. *Bull. med. Par.* 9, 3, cxviii, N.
- Appendicitis. A plea for immediate operation. J. F. OWEN. *Med. Press & Circ.* 9, 3, cxviii, 3.
- Ulcerative colitis. Its etiology, diagnosis and treatment. KAPLAN. *Prag. med. Wchnsch.* 9, 3, cxviii, No. 4.
- Diagnosis and treatment of dysenteric stenosis of the colon. MORTY. *Echo méd. d. Nord.* 9, 3, cxviii, No. 343.
- Membranous pericollitis and allied conditions of the ileocecal region. J. V. JACKSON. *Ann. Surg. Phila.* 19, 3, cxviii, 374. [31]
- Membranous pericollitis or Jackson's membrane. H. E. KRAMER. *J. Mich. St. M. Soc.* 9, 3, cx, 50.
- Membranous pericollitis. LEONARD. *Prag. med. Wchnsch.* 9, 3, cxviii, N. 30.
- M-shaped colon. J. H. GUTMANN. *Albany M. Ann.* 9, 3, cxviii, 47.
- Contribution to study of the congenital megacolon. M. FAGO. *Gazz. d. osp. ed. clin. Milano.* 9, 3, cxviii, 300. [31]
- Foreign bodies in the intestine. A. M. RYBAK. *Arztz. Ztg.* 9, 3, cx, 347.
- Treatment of chronic constipation. F. H. EDWARDS. *Bristol Med. Chir.* 9, 3, cxviii, N. 9.
- Empysematous wounds of the rectum and of the iliac sigmoid, laparotomy recovery. BIERA and JOE. *Rev. méd. de l'Est.* 9, 3, cx, No. 4.
- Practical ingenious bandages for anal cases and for prolapse of the rectum. DICKER. *München. med. Wchnsch.* 9, 3, cx, 300.
- Primary melanotic tumors of the rectum. CRALLER and BOWEN. *Rev. de chir. Par.* 9, 3, cxviii, No. 3.
- Carcinoma of the rectum. F. M. CARO. *Med. Press & Circ.* 9, 3, cxviii, 307.
- Berg's polype of the rectum and of the iliac sigmoid. DICKER. *München. med. Wchnsch.* 1913, cx, No. 4.
- Immediate and remote results in combined operation for cancer of the rectum. CRALLER and PERLIN. *Lyon chir.* 9, 3, cx, 50. [32]
- Modifications of the combined method of the operation for cancer of the rectum. K. DANKERT. *Zentralbl. f. Chir.* 9, 3, cx, 457.
- Operations upon the rectum under local anesthesia. J. F. SAMUEL. *Am. Med.* 9, 3, cxviii, 61.
- Fecal fistula. J. B. DEVEREUX. *Therap. Gaz.* 9, 3, cxviii, 53. [32]
- The injection treatment of hemorrhoids. G. A. HARRINGTON. *Am. J. Surg.* 9, 3, cxviii, 66.
- Excision of hemorrhoids after Whitehead's method. HANCOCK. *Arch. f. klin. Chir.* 9, 3, cx, No. 4.
- Liver, Pancreas and Spleen**
- A new procedure for the functional diagnosis of the liver. GARDNER. *Gazz. d. osp. ed. clin. Milano.* 9, 3, cxviii, No. 5.
- Bradycardia in injuries of the liver. RUBINOW. *Deutsche Ztschr. f. Chir.* 9, 3, cxviii, Nos. 3-6.
- Bradycardia in injuries of the liver. H. FROHMANN. *Deutsche Ztschr. f. Chir.* 9, 3, cxviii, 530.
- Experimentally produced cirrhosis of the liver and pathogenesis of ketosis, with special consideration of the bile capillaries under ligation of the common bile duct and in ketogenesis introduction. T. OGATA. *Beitr. z. pathol. Anat.* 3, 3, cxviii, 35.
- A case of primary cancer of the liver in writing. MITSUKI. *Arch. f. klin. Chir.* 9, 3, cx, No. 4.
- A case of alveolar hydatid cyst of the liver. DICKER. *Klein. med. J.* 9, 3, cxviii, No. 4.
- Multiple hydatid cysts of the liver. AUBERT and ROBERT. *München. med. Wchnsch.* 9, 3, cxviii, No. 6.
- An interesting case of abscess of the liver. CARRO. *Rev. méd. de l'Est.* 9, 3, cxviii, No. 4.
- Dysenteric abscess of the liver rupture into the bronchi cured by embolectomy. CHIFFARD. *Bull. med. Par.* 9, 3, cxviii, No. 16.
- New literature on surgery of the liver and of the gall-bladder. SERRI. *Med. Klin.* 9, 3, cxviii, No. 4.
- Stones in the common duct of the liver. W. D. HAMILTON. *Ohio St. M. J.* 9, 3, cxviii, 68.
- The differential diagnosis of gall bladder disease. A. R. KAY. *Ill. M. J.* 9, 3, cxviii, 357.
- Morphologic changes in tissues with change in environmental changes in gall-bladder following autoplasmic transplantation into gastro-intestinal tract. M. BURR. *J. Med. Research.* 9, 3, cxviii, No. 4. [33]
- A case of enormous congenital bilocular gall-bladder. TOMA. *Arch. f. klin. Chir.* 1913, cx, N. 4.
- Mucocoele of the gall-bladder. W. McADAM. *Eccl. Chir. J.* 9, 3, cxviii, 337.
- Surgery of the gall-bladder. ADLER. *Berl. klin. Wchnsch.* 9, 3, cxviii, N.
- Gall-stones. W. D. HAMILTON. *Lancet Clin.* 9, 3, cxviii, 300.
- Cholecystitis. N. F. LANE. *J. Am. Inst. Homeopathy* 9, 3, 9, 2.
- Case of cholecystitis due to infection of the gall-bladder by the typhoid bacillus in a child three years old. H. LOWENBERG. *Arch. Pediatrics.* 9, 3, cxviii, 1.
- Difficulties in the diagnosis of gall-stones. F. L. BURR. *Cleveland M. J.* 9, 3, cxviii, 77.
- Clinical and experimental studies of cholecystectomy. L. D. VAN HENSEN. *Dissertation, Utrecht.* 9, 3, cxviii, 341.
- End-results of cases operated on for gall stones. A. R. SERRI. *Bristol Med. Chir. J.* 9, 3, cxviii, No. 9.
- An aneurysm in the hepatic duct, operative findings. HINTENBERGER. *Wien. klin. Wchnsch.* 9, 3, cxviii, 450.
- Aneurysms of the bile ducts: consideration of personally observed case. ROSENTHAL. *Deutsche Ztschr. f. Chir.* 9, 3, cxviii, Nos. 5-6.
- Carcinoma of the ampulla of Vater. G. W. OUTER. *Ann. Surg. Phila.* 9, 3, cxviii, 402. [34]
- Cancer of the ampulla of Vater. CLARK. *Rev. d. Gynéc. et d. Chir. abdom.* 9, 3, cxviii, 9.
- Medical treatment of biliary lithiasis. PIERCE. *Bull. med. Par.* 9, 3, cxviii, N. 7.
- Biliary lithiasis and intestinal lithiasis. BAKER. *Progrès méd. Par.* 9, 3, cxviii, N. 1.
- Transperitoneal cholecystotomy: clinical and anatomical study. G. MOROZZI. *La Riforma med.* 9, 3, cxviii, 74.
- The possibility of replacing the choledochus by implantation of the processes of the pancreas. MOROZZI. *Deutsche Ztschr. f. Chir.* 9, 3, cxviii, 447. [35]
- Regeneration of the cystic duct following insertion of T-tube. K. PROFFER. *Beitr. z. klin. Chir.* 9, 3, cxviii, 360. [35]

- Pancreatic hemorrhage. KAZME. Deutsche Ztschr. f. Chir. 93, 400, 47. [346]
- Case of hemorrhagic tumor of the pancreas. F. B. DRISCOLL. N. M. Month. 93, 254, 67.
- The mechanism of the external secretion of the pancreas. A. H. STI. J. med. de Bruxelles, 93, 1070.
- Carotid reaction and its diagnostic value in affections of the pancreas. LANG. Wien. klin. Wochenschr. 93, 2215, N. 9.
- The diagnosis of the functional activity of the pancreatic gland by means of ferment analyses of the duodenal content and of the stools. B. B. CROW. Am. J. St. 34, 93, 235, 103. [346]
- Diagnosis of acute inflammation of the pancreas. NAC. Wk. klin. Wochenschr. 93, 22, No. 9.
- A peripneumonic splenic developed between the lobes of the transverse mesocolon. ZINS. N. 100 and 300. Deutsche Ztschr. f. klin. Chir. 93, 2322, Nov. 14.
- Pancreatic and peripneumonic lymphangitis. J. B. DE. 22 and 17. 1777. F. Am. Surg. Ass. 93, 31. [37]
- Surgery of the pancreas. W. J. MA. T. Am. Surg. Ass. 93, 313. [37]
- Hyaline splat of the spleen. PIRAT. Marseille med. 93, 1, No. 1.
- Experiments on resuscitation after repair of injuries of the spleen by means of suture. C. VON. Clin. Wk. St. 34, 93, 235, 103.
- Thrombosis of the spleen associated with fatal gastric hemorrhage. E. L. Deutsche med. Wochenschr. 93, 2322, N. 1.

- The effect of X-ray on the normal spleen. A. M. GLEN. Internat. J. med. 93, 2322, 65.
- Pancreatic transplantsations in the spleen. J. H. PERRY and F. T. MURPHY. J. Exp. St. 93, 2322, 52. [38]
- Clinical observations concerning early series cases of splenectomy. H. E. GERRIN. Lancet Clin. 93, 2322, 344.

Miscellaneous

- The diagnosis of acute abdominal conditions in children. EMERSON CANNERY. Med. Press & Circ. 93, 2322, 54.
- An acute abdomen. F. Y. KAS. Austral. M. Gaz., 93, 2322, 5.
- Relation between blood pressure and the prognosis in abdominal operations. C. W. CARR. T. Am. Surg. Ass. 93, 317. [38]
- A case of tonsillar carcinoma. WOLKOW. Pediatrics 93, 2322, 54.
- Pathogenesis and clinical manifestation of prostatic of the ureters. CL. ECO. PIZZAZ. Gazz. internat. di med. chir. 93, 2322, 200.
- A case of complete lateral in erosion. KROGMEYER. Arch. f. pathol. Anat. Physiol. u. klin. Med. 93, 2322, 3.
- A case of acute diffuse sarcomatosis (atypical lymphocytomatous) of the liver (stomach, intestine, kidney, etc.) and of the mesenteries. M. M. and M. M. M. Arch. de med. exper. et d'anat. pathol. Par. 3, 2322, No. 1.
- Laparoscopy and thoracoscopy. H. C. JACOB. Ber. klin. d. F. ber. 93, 2322, 2.
- Technique of and indications for laparoscopy. RIVON. J. de chir. Paris, 93, 2322, 2.
- Splenectomy and embolism after laparoscopy. GERRIN. Deutsche Ztschr. f. Chir. 93, 2322, Nov. 3-4.

SURGERY OF EXTREMITIES

Diseases of Bones, Joints, etc.

- The growth of the teeth and the reproduction of bone. H. G. W. WILKINS. J. Am. St. Ass. 93, 2322, 57. [39]
- The relation of trauma to bone tuberculosis. WILSON and ROMAN. Surg. T. Am. Orthop. Soc. 93, 316. [39]
- An experimental study of bone and joint tuberculosis. J. H. 47. J. Exp. St. 93, 2322, 57. [39]
- Histology (of Redner) as a guide in the treatment of bone disease. HARRISON. T. Am. Orthop. Soc. 93, 31. [41]
- Etiology and therapy of osteomalacia and rachitis. STOKAR. Cor. d. f. ch. med. Anat. 93, 2322, 57. [41]
- Osteomyelitis in early childhood. HARRISON. Bull. med. Par. 93, 2322, No. 1.
- Bone rare forms of osteomyelitis. M. FASSIO. Gazz. d. med. d. lin. St. 34, 93, 2322, 574.
- Osteomyelitis of the tibia: transplantation of the end of bone from opposite side. J. B. MURPHY. Surg. Clin. J. B. Murphy. 93, 2322, No. 1. [41]
- Two cases of Paget's disease of bones, etiological considerations. ENGLISH. Progress med. Par. 93, 2322, 3.
- Rachitis in the newborn. M. K. WILKINS. Jahrb. f. Kinderch. 93, 2322, 77. [42]
- Periosteal round-celled sarcoma of the femur involving the third of the shaft with extensive multiple metastases. COURT. T. Am. Surg. Ass. 93, 315. [42]
- Osteosarcoma of the lower extremity of the femur amputation of the limb. TOURNAUX and GILBERT. Toulouse med., 93, 2322, N. 3.

- Multiple plasma cytoma of the bone also contributed to myeloma. G. WILSON. Ber. path. Anat. 93, 2322, 5.
- Osteosarcoma. PIRAT. Pol. Clin. Roma, 93, 2322, 3.
- Arteries of the tibia. POTTER. Clinique Par. 93, 2322, 5.
- Fractures of the joints by projectiles. L. SCHLIER. Deutsche med. Wochenschr. 93, 2322, 600.
- A collection of facts, ideas, and theories relating to the diverse elements that contribute to success in treatment of joint diseases. H. W. WILKINS. Boston M. & S. J. 93, 2322, 233, 235 and 45. [43]
- Fractures and joints and bone marrow. L. W. EL. Am. J. Surg. 93, 2322, 8.
- Inflammatory affections of the joints: their importance from the point of view of practice (rheumatic arthritis, gonorrheal arthritis, and gout). F. WILSON. Klin. Wochenschr. 93, 2322, 200.
- Diagnosis and treatment of affections and deformities of the hip-joint. M. H. WILSON. Wien. med. Wochenschr. 93, 2322, 754.
- Chronic arthritis and tuberculous rheumatism. PIRAT. Presse med. Par. 93, 2322, No. 3.
- Arterial deformities. J. C. ROBERTSON. Long Island M. J. 93, 2322, 80.
- The nature of arthritis deformans. A. WILSON. Ber. klin. Wochenschr. 93, 2322, 200.
- The treatment of gonorrheal arthritis by arthogen. F. TROIANO. Wien. med. Wochenschr., 93, 2322, 835.
- The treatment of tuberculous of the joints. R. Deutscher Chir. Kongr. 93, 2322, 844.

- Tuberc. arthropathies and spontaneous fractures. A. BLUMBERG. Fortsch. d. Med., 9 3, xii, 309.
- The influence of the innervation and of the trophy of the thyroid body on articular affections. GAGNEPONT. Chir. Arch. Veliamova, St. Petersburg 9 3, xiv, No. 1.
- So-called typical laceration of the biceps. LUSCHKA. Ztschr. f. Verwundungswund. 9 3, i, 65.
- Rupture of the musculus rectus femoris. VOGEL. Wien med. Wchnsch. 9 3, lxi, No. 3.
- Ondyling myositis. CHAMBERLAIN. Virch. gaz. St. Petersburg 9 3, ix, No. 8.
- Myositis ossificans traumatica. W. B. COLEY. Ann. Surg. Phila. 9 3, i, 395. [44]
- Lacerations of the bursa serosa of the semitend. poplitea. PETRIVALE. Cas. lek. česk. Prague 9 3, li, No. 8.
- Chronic trochanteric bursitis. J. B. MURPHY. Surg. Clin. J. B. Murphy 9 3, ii, No. [44]
- Hypertrophy of the serous bursa of the elbow. PAVLOV. Polichin. Roma, 9 3, ix, N.
- Regeneration of the tendons. M. S. HENDERSON. J. Lancet, 9 3, xiii, 75. [45]
- Infection of the hands in surgery. APPELO. Clin. chir. Milano 9 3, xvi, No.
- The location of pus in the hand. A. A. M. C. VELL. Med. Press & Circ. 9 3, cxi, 328.
- Was fibrosis of the dorsal surface of the hand condition secondary to an injury? DECAEN. Gaz. d. hôp. Par. 9 3, lxxvi, N. 30.
1. Partial ysis of the fingers and of the rest. ROWOTY. Chir. Arch. Veliamova, St. Petersburg 9 3, xvi, No.
- Treatment of synovial cysts of the wrist by 1. percutaneous fracture of osseus. P. KOWAL. Progrès méd. Par. 19 3, xii, No.
- The causes of tumors of the foot. WICKHAM. Ztschr. f. Montgish. Radwundsch. 9 3, xv, N.

Fractures and Dislocations

- Some points of interest regarding long bone fractures. A. LAUDSCHNEIDER. North. Am. Med. 9 3, 63.
- The causes of grave strength to the radius and the ulna. TOULMANT. Rev. d'orthop. Par. 9 3, No. 2.
- Treatment of fractures. J. C. LAUDSCHNEIDER. North. Am. Med. 9 3, 69.
- Old and new methods in the treatment of fractures. TONNER. Chir. Arch. Veliamova, St. Petersburg 9 3, xix, No.
- Treatment of compound fractures. C. BIRCH. J. Dissem. Med. Herald, 9 3, xxi.
- A case of multiple spontaneous fractures of special form. Lobstein disease. PRINSON. Clinique Par. 9 3, li, No. 9.
- Fracture of the tuberculous scapular humerus. JINCO. Ljenski. j. zdrav. Agam, 9 3, xxi, No.
- Diagnosis and treatment of fractures near the elbow. VOGEL. Med. Klin. 9 3, 7, No.
- Some cases of supra-condylar fracture of the elbow in childhood. H. KOWAL. Polichin. Bruxelles, 9 3, vi, No. 5.
- Should the fractures of the lower extremity of the radius be reduced? GARRÉ. Normande med. 9 3, xix, N. 5.
- Separation of the epiphyses of the metacarpals. G. 4. Rev. d'orthop. Par. 9 3, iv, No. 2.
- The treatment of fractures of the neck and femur. L. CORN. New Orleans M. J. 9 3, iv, 30.
- Fracture of fractures of the patella. Lajart. Sem. med. P. 9 3, xxi, N.

- Treatment of superior marginal fractures of the tibia. VILLARDE. Paris chir. 9 3, iv, No. 2.
- Moss fractures of the ankle. CHAPUT. Rev. d'orthop. Par. 19 3, iv, No. 2.
- The third malleolus, posterior marginal fracture. DUBOIS. Lyon chir. 9 3, ix, No. 3.
- Fracture of the posterior apophysis of the astragalus. WILLI. Norsk. Mag. f. Lægevidensk., Christiania, 9 3, lxxv, No. 3.
- Central dislocation of the femur. BARD. Arch. f. Orthop. Mechanotherap. u. Unfallchir., 9 3, xii, Nos.
- Snapping hip. J. F. BUNDE. Tr. Am. Surg. Ass., 9 3, May. [43]
- Dislocations of the knee joint. HERRM. Beitr. klin. Chir. 9 3, lxxvii, N. 2.
- Dislocations of the semi-lunar cartilage. SEVERIANO. Gaz. med. Bucuresti, 9 3, li, No. 7.
- Dislocations of the wrist. ALFON. Gaz. d'osp. d. clin., Milano 9 3, xxi, 407.
- Hypertension and backfire injuries of the rib. C. S. WALLACE. Lancet Lond. 9 3, cxxx, 89.
- Detachment of the extensor tendons at the phalanges. BROWN and LEBLANS. J. d. ac. Méd. de Lille 9 3, xxi, 1, No. 9.
- Surgery of the Bones, J. Ints, etc.
- Open treatment for fractures. GILQUENT. Gaz. d'osp. d. clin. Milano, 9 3, xxi, N. 2.
- Some phases in the treatment of fractures. W. D. HARRIS. Internat. J. Surg., 9 3, xxi, 78.
- United fractures treated 1. are unsuccessfully by the Lane plate method and successful by insertion of tibial bone. THOMAS W. HUNTINGTON. Northwest Med. 9 3, 68.
- A new method of bone synthesis. MUZZI. Rev. osp. Roma, 9 3, x, N. 4.
- Replacement of finger and toe phalanges. W. GOERTEL. München med. Wchnsch., 9 3, i, 350.
- Resection of the elbow joint report of case. HANCOCK. Internat. J. Surg. 9 3, xxi, 68.
- Treatment of internal injuries of the knee joint. VULPIUS. München med. Wchnsch. 9 3, ix, N. 9.
- Resection of the leg. method of excising the knee joint when the latter is extensively involved. N. A. BOGOMOL. Arzte-Zeit., 9 3, ix, 5. [46]
- Indications for arthrodesis. W. BOCKEL. Deutsche med. Wchnsch. 9 3, xvi, 458.
- Arthrodesis of the hip-joint. O. VILSTEIN. München med. Wchnsch. 9 3, ix, 69.
- A case of gangrene of the leg in an infant. days old amputation recovery. D. C. L. FITZGERALD. Lancet Lond. 9 3, cxxxv, 753.
- Primary muscular necrosis and myonecrosis. TAMARCO. Polichin. Roma, 9 3, xxi, 86.
- Aponeurotic graft in congenital absence of the musculus trapezius. CHAMBERLAIN. Arch. f. Orthop. Mechanotherap. Unfallchir. 9 3, xii, Nos.
- The treatment of paralytic and deformities following infantile paralysis. F. C. GARDNER. Wis. M. J. 9 3, xi, 307.
- Transplantation of tendons in infantile paralysis of the lower extremities. A. MARTINEZ. Rev. Ibero-Americana de chir. med. 9 3, xxi, 73.
- Tendon fixation. W. E. GALLIE. Ann. Surg. Phila., 9 3, i, 427. [46]
- A new method in the operative treatment of rheumatic contractures. FLOWERTZ. Deutsche Ztschr. f. Chir. 9 3, cxi, Nos. 5-6.

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

- The history of scoliosis R. W. LOVETT. *T. Am. Orthop. Ass.* 9, 3, 416. [47]
 Congenital scoliosis LARA. *Deutsche med. Wochenschr.* 9, 3, 222, N.
 Scoliosis in life and in medical practice GOTTSCHEW. *Prag. med. Wochenschr.* 9, 3, 222, No. 3.
 Scoliosis—its prognosis J. L. FORTNER. *T. Am. Orthop. Ass.* 9, 3, May. [47]
 Some recent advances in the treatment of scoliosis L. M. LITTLE. *Clin. J.* 9, 3, 22, 369. [47]
 The roentgen treatment of scoliosis A. M. FORTNER. *T. Am. Orthop. Ass.* 9, 3, May. [48]
 Utilization of the respiratory pressure in the treatment of scoliosis. SMITH. *München med. Wochenschr.* 9, 3, 12, No.

- Corrective jackets in the treatment of structural scoliosis with especial reference to instrumentation and record. A. H. FREEMAN. *T. Am. Orthop. Ass.* 9, 3, May. [48]
 What to do after corrective jackets are discarded BRADFORD. *T. Am. Orthop. Soc.* 19, 3, May. [48]
 An introduction to the symposium on lateral curvatures. COOK. *T. Am. Orthop. Soc.* 9, 3, May. [48]
 Movements or positions of the normal spine and their relation to lateral curvature. E. G. AINSWORTH. *T. Am. Orthop. Ass.* 9, 3, May. [49]

- A consideration of the correction of the fixed types of lateral curvature compared by lateral derangement, especially those of the cardiac variety with slight modification of Abbott method. R. MINSCHBACH. *T. Am. Orthop. Ass.* 9, 3, May. [49]

- Results obtained by new methods of corrections of the apical column in orthopedic scoliosis. JERUSA. *Wien. klin. Wochenschr.* 9, 3, 22, No. 9.

- A report of fourteen cases of apical bifida and one of sacro-coccygeal tumor. ROWELL PARK. *Buffalo M. J.* 9, 3, 12, 437. [49]

- Two cases of apical bifida. ZAKHARSKAYA. *Beitr. z. pathol. Anat. allg. Pathol.* 9, 3, 1, N. 3.

- Two unusual forms of apical bifida. GORDON. *Glasgow M. J.* 9, 3, 12, 6.

- Meningocele and apical bifida. CARRUTHER. *Paris med.* 9, 3, 1, N. 14.

- A case of congenital fissure of the vertebra, stomach, bladder, genitalia, and the intestines associated with doubling of the caecum and the appendix. LAWRIE. *Beitr. pathol. Anat. allg. Pathol.* 9, 3, 1, 575.

- A case of laminectomy for tuberculous spondylitis associated with paraplegia. FORTNER. *Policlin.* Roma, 9, 3, 22, N. 9.

- Cervical tuberculosis. SCHWARTZ. *Med. Klin.* 9, 3, 12, No. 9.

- Pathology of typhoid spine. M. H. ROBERTS. *Boston M. & S. J.* 9, 3, 12, 348.

- Carcinomatous of the sacroca. DEBERNARDI. *Gloc. d. Acad. di med. di Torino*, 9, 12, No.

- An enormous hard sacro-coccygeal tumor. ARFANT. *Paris med.* 9, 3, 1, N. 14.

- Paraplegia in Hodgkin's disease—treatment by laminectomy and the Röntgen rays. CHAS. F. MILES and EDWARD MARRITT. *Proc. M. J.* 9, 3, 22, 459.

- An injury by projectile which penetrated the thorax and the vertebral canal, associated with compression of the

- spinal cord and Brown-Sequard's syndrome osteoplastic laminectomy and extraction of the projectile. recovery. D. FAHRI. *Rev. op.* Roma, 9, 3, 1, N. 5.

- Anatomical researches on the lumbar vertebrae of acro-lithic man. HICK and BAUDOUX. *Arch. prov. de chir.* Par. 19, 3, 22, No. 2.

- Technical difficulties in the puncture of the sacral canal of calcific pelvis. RÖNNBERG. *Zentralbl. f. Gynäk.* 9, 3, 22, 378.

- Spondylosis of the cerebrospinal fluid. RATHENY. *Ann. de méd. et chir. infant.* 9, 3, 22, 65.

- Successful removal of an intradural tumor from the spinal canal. L. NEWMARK and H. M. SUTHERLAND. *Calif. St. J. Med.* 9, 3, 22, 203.

- On the cases of tumor of the spinal cord. SARA. *Sci. Med.* 9, 3, 22, No. 2.

- Guist tumors of the coccyx and cauda equina. COLLINS and ELKIND. *T. Am. Neurol. Ass.* 9, 3, May. [50]

- A very large multibolusiform fibroma of the cervical cord. MÜNSTERMANN and CARMICHAEL. *Deutsche Ztschr. f. Nervenh. Leipzig* 9, 3, 22, No. 2.

- Brown-Sequard's syndrome. CERRASCOLO. *Rivista med.* Napoli, 9, 3, 22, No. 9, 11.

- Traumatic lesions of the spinal cord. A. WHITTIER. *Ztschr. f. d. ges. Neurol. u. Psychiat.* 9, 3, 22, 202.

- The present status and the future of surgery of the spinal cord. RÖNNBERG. *Berl. klin. Wochenschr.* 9, 3, 1, No.

Malformations and Deformities

- Trigger finger. H. RA. *Hosp. Bull. Univ. Md.* 9, 3, 12, 1.

- A case of supernumerary fingers. T. L. BLACKBURN. *South African M. Rec.* 9, 3, 12, 103.

- A combination of congenital luxation of the head of the radius with Little's disease. B. KIRCH. *Ztschr. f. orthop. Chir.* 9, 3, 22, 34. [50]

- A case of ballus aris. HOLLERER. *Deutsche Ztschr. f. Chir.* 9, 3, 22, No. 5-6.

- Congenital hypertrophy of the right lower limb. TROSCOT. *Rev. d'orthop. Arch. f. Orthop. Mécanotherap.* Unfalldiag. 19, 3, 22, No. 4.

- Flat-foot. CRAMER. *Arch. f. Orthop. Mécanotherap.* Unfalldiag. 19, 3, 22, No. 4.

- The etiology of flat-foot. C. GILLIES. *Policlin.* Roma, 9, 3, 22, 1.

- Statistics of flat-foot. MALACE. *Vsch. gaz. St. Petesb.* 9, 3, 22, No. 8.

- The static flat-foot. N. M. MILLER. *Amst.-Zis.* 1913, 22, 279.

- The treatment of flat-foot. DE FOREST P. WILLIAM. *Proc. M. J.* 9, 3, 22, 437. [50]

- The prevention of foot atrophy. ROBERT B. OSOON. *Boston M. & S. J.* 9, 3, 22, 360. [51]

- The modern foot. K. B. CARRON. *Gas med. d. Ser de España*, 9, 3, 22, 3.

- Deformities of the foot considered from the point of view of their pathogenesis. KIRCHNER. *Rev. d'orthop.* Par. 9, 3, 22, No. 2.

- Two cases of supernumerary toes. GEMMARD. *Arch. f. Orthop. Mécanotherap. u. Unfalldiag.* 19, 3, 22, No. 2.

- Congenital hypertrophy of the first and second toes. RICHARD and LOUAT. *Rev. d'orthop.* Par. 19, 3, 22, No. 2.

- Flower-of-Park casts. E. S. GIBBY. *J. Lancet.* 9, 3, 22, 138.

SURGERY OF NERVOUS SYSTEM

Injuries of the radial nerve in the fore arm. M. BERNHARDT. *Neurol. Zentralbl.* 9 3, xxvii, 230.

Experimental study of intraneural injections of alcohol. GORDON. *T. Am. Neurol. Ass.* 9 3, May. [51]

Histopathology of neuritis with special consideration of regenerative processes. B. DOSTROW. *Deutsche Ztschr. f. Nervenheilk.* 9 3, xvi, 20.

A case of polyneuritis of the lower limbs after profuse hemorrhage and prolonged elevation of the limbs. DUBROT PIERRE and VIGORANGE. *Arch. gén. de Chir. Par.* 9 3, vi, No.

A case of Reclinghausen's disease associated with hypernephroma. SAKIMUK. *Arch. f. pathol. Anat. u. physiol. f. klin. Med.* 9 3, cxi, No. 3.

Recognition of members of the somatic motor chain of nerve cells by means of fundamental type of cell structure, and the distribution of such cells in certain regions of the mammalian brain. EDW. F. MALOWE. *Anat. Rec.* 9 3, vi, No. [51]

Hyperexcitability of nerves in tetany. W. G. MAC CALLUM. *Mitt. u. d. Grenzgeb. d. Med. u. Chir.* 9 3, xiv, 963. [52]

The radiotherapeutic treatment of sciatica. DELANCK and IV. *Arch. Radiat. Ray.* 9 3, xvi, 323. [52]

End-result of operation for brachial paralysis. J. B. MURPHY. *Surg. Clin. J. B. Murphy.* 9 3, ii, No. [52]

The operation of Franke. SAUTZ and TITTEL. *J. de chir., Par.* 9 3, x, 29. [53]

Operative treatment of lesions of the central nervous system. S. SCHROEDER. *Zentralbl. f. d. Grenzgeb. d. Med. u. Chir.* 9 3, xvi, 4 3.

A case of spastic paraplegia with dorsal root section for pain and spasticity. L. KAUFMAN and P. DE BERTROX. *J. Am. M. Ass.* 9 3, ix, 66.

Franke operation and Voennier's operation in visceral crises of tabes. LEBRON. *Lyon chir.* 9 3, ix, No. 3.

Spinal operations in tabetic subjects. SICARD. *Lyon chir.* 9 3, ix, No. 3.

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

Surgical cure of the skin. ROGLIN. *Va. M. Semi-Month.* 9 3, xvi, 6 3.

Free plastic surgery of the fascia lata. LUCAS. *Arch. f. klin. Chir.* 9 3, c, No. 4.

Free fascia transplantation; experimental and clinical investigations. P. KOWALEV. *Dissertation, St. Petersburg.* 9 3. [56]

Free aponeurotic grafts. PRIZKOV. *Kazan. med. J.* 19 3, xi, No. 4.

The grafting of preserved amniotic membrane to burned and ulcerated surfaces substituting skin grafts. M. STOKES. *J. Am. M. Ass.* 9 3, ix, 973. [57]

Lahot erysipelas. SIKORSKY. *Blumenschild. Deutsche med. Wchnsch.* 9 3, xxxix, N.

Copper in the treatment of cutaneous tuberculosis. A. STRATHE. *Deutsche med. Wchnsch.* 9 3, xix, 503. [58]

Multiple calcification ("Calcoses") in subcutaneous tissue. E. P. WILSON. *Brit. J. Children's Dis.* 9 3, No. 1.

A case of cutaneous horn. CARLO. *Chir. chir. Milano.* 9 3, xii, No. 2.

Some rare complications associated with fornicules. FISCHER. *Post. med. chir. Presse.* 9 3, xix, No. 0.

Epithelial tumors of the sweat glands. GAZZ. *Chir. chir. Milano.* 9 3, xii, No.

X-ray treatment of cutaneous epitheliomas. G. SCARDIO. *Policlin. Roma.* 9 3, xi, 260.

Massive dose X-ray treatment of cutaneous epithelioma. G. M. MACKENZIE and J. RUSSELL. *N. Y. M. J.* 9 3, xxvii, 633. [57]

Multiple primary carcinoma of the skin in an infant. W. HERRMANN. *J. Cutan. Dis.* 9 3, xxi, 60.

A case of ossifying chondroma of the skin. MAX STRANDBERG. *Arch. f. Dermatol. u. Syphilis.* 9 3, cxvi, 93.

The treatment of ulcer of the thigh by electroplasty (Unna bandage). VOGEL. *Ungar. f. Laeger Kfzberk.* 9 3, lxxv, N. 2.

Treatment of chronic ulcers of the leg, with special reference to symptomatology and diagnosis. E. ANASTAS. *Internat. J. Surg.* 9 3, xxvi, 85.

Congenital nevus. JAO H. CHANG. *Pediatrics.* 9 3, xiv, 447.

The cure of vascular nevus by radium. RAYET. *Scapied et Lidge med.* 9 3, lxxv, No. 53.

Electrical operative treatments for diseases of the skin and mucous membranes. W. KOWALEV. *Serley. Prag. thomae Lond.* 9 3, ix, 6.

Surgical aspects of purpura. J. F. MITCHELL. *T. Am. Surg. Ass.* 9 3, May. [58]

The treatment of chronic X-ray ulcerations. JOHANN DEUTSCH. *Arch. f. physikal. Med. u. med. Techn.* 9 3, vi, 79.

Diagnosis and treatment of gangrene of the foot. L. MONTGOMERY. *Zentralbl. f. Chir.* 9 3, xi, 597.

Treatment of beginning gangrene. M. BORCHARDT. *Zentralbl. f. Chir.* 9 3, xi, 597.

Treatment of spontaneous gangrene of the extremities. KODA. *Deutsche Ztschr. f. Chir.* 9 3, cxi, No. 3-4.

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, etc.

Recent investigation on tumors. M. LASSA. *Med. Klin.* 9 3, ix, 420.

The induction of leucitis and cholesteritis upon the growth of tumors. T. B. ROBERTSON and T. C. BOWEN. *J. Exp. M.* 9 3, xvi, 344. [58]

Inheritance of predisposition for tumors. M. ARTHUR and DONATI. *Archiv. med. Wchnsch.* 9 3, ix, No. 2.

The formation of tumors in cold blooded animals. CARL. *Med. Klin.* 9 3, ix, No. 2.

Transplantation of tumors in animals with spontaneously developed tumors. FLEISHER and LOEW. *Tr. Am. Ass. P. thol. & Bacteriol.* 9 3, May. [58]

- The lymphocytosis of infection. R. C. CABOT. *Am. J. M. Sc.* 9 3, colv. 335. [63]
- Anemia as an operative risk. HENRY T. BYRON. *Am. J. G. Dec. Soc.* 9 3, 21a. [65]
- Operations on patients with hemoglobin of 40 per cent or less. T. S. COLLIER. *T. Am. Gynec. Ass.* 9 3, May. [66]
- Characteristics of hemoglobins. F. MULLER. *Folia haematol.* 9 3, 21v. 5.
- The influence of lipoid on hemolysis. J. D. FLICKER. *Cleveland M. J.* 9 3, 21, 8.
- Some observations on hemophilias with report of three cases. J. E. GILCHRIST. *Tex. St. J. M.* 9 3, viii. 303.
- The arrest of hemorrhage from bone by plugging with soft tissue. G. T. VANDER. *Ann. Surg. Phila.* 9 3, ix, 434.
- Arresting of hemorrhage in operation. C. C. TOLSON. *Wash. Univ. Med. J.* 9 3, ix.
- Modern methods of hemostasis. BISHOP. *Med. Klin.* 9 3, ix, 70.
- Definitive hemostasis in resection of the parathyroid glands. G. CAROVITTO. *Gazz. d. osp. d. clin., Milano.* 9 3, xxiv. 377.
- Current methods of hemostasis in injury of the large arteries by projectiles. DUPRE. *Arch. de Méd. et de Pharm. mil. Par.* 9 3, 21, 2.
- Hemorrhage controlled in two cases by local application of horse serum. C. G. LEVISON. *J. Am. M. Ass.* 9 3, 15.
- The treatment of hemorrhagic conditions by injections of serum. A. GONZALEZ. *Pediatrica, Napoli.* 9 3, xii, 33.
- Report of death from intercal hemorrhage with unusual findings at autopsy. L. H. GILLETTE. *Vt. M. Month.* 9 3, 21v. 39.
- Blood coagulation tests in carcinoma and sarcoma. B. JARRI. *Folia haematol. Arch.* 9 3, 21v. 67.
- Development and origin of toxic thromboses and its significance. S. KOSAKA. *Beitr. pathol. Anat. u. z. allg. Pathol.* 9 3, iv. 459.
- Thrombotic action is general and common to all substances introduced into the blood. H. DE WAELE. *Ztschr. f. Immunitätsforsch. exp. Therap.* 9 3, xvii, 114.
- Thromboses and embolism following operation and childbirth. B. R. SCHLACK. *T. Am. Gynec. Ass.* 9 3, May. [66]
- The mechanics of embolism. R. GEIGER. *Arch. f. pathol. Anat. Physiol.* 9 3, colv. 353.
- Embolism of the parathyroid embolism of the coronary artery of the heart by cerebral tumor in the new-born. A. J. MARZANO. *Zentralbl. f. allg. Pathol. pathol. Anat.* 9 3, xxiv. 244.
- Principles, technique and results of direct transfusion of the blood. G. SARTORI. *Arch. Italiano d. clin. e. p.* 9 3, xvi.
- Blood and Lymph Vessels**
- Frequency of atherosclerosis of the legs of Japanese and the success of operation in few cases. K. MATSUOKI. *Arch. f. klin. Chir.* 9 3, 270.
- Cases of aneurism treated by the Miles method. TULL VALGREN. *T. Am. Neurol. Ass.* 19 3, May. [67]
- Nervous syndromes caused by aneurism of the subclavian artery. P. MAGGIOR. *Riv. di patol. nerv. ment.* 9 3, xvii, 83.
- Profusional aneurism of the superficial palmar arch. REGNAULT and BOCHET. *Lacourte. Rev. de chir.* 9 3, 21v. 257. [67]
- Arterial anomalies. VIDA. *Gaz. d. hosp. do Porto* 9 3, No. 5.
- Some rare anomalies of the vessels. JAMOURA. *Chir. Arch. Velambrova, St. Petersburg.* 9 3, xii, No.
- Arterio-venous anastomosis for threatened gangrene of the foot. L. FREEMAN. *T. Am. Surg. Ass.* 9 3, May.
- The employment of reduced blood circulation in the treatment of gangrene. LIPSKI. *Pract. Vrach.* 9 3, xii, 94.
- Replacement of segment of the inferior vena cava by free transplantation of the external jugular vein of the same animal. JESSE and LEVINE. *Arch. f. klin. Chir.* 9 3, c, No. 4.
- Oedema of the inferior vena cava as a result of internal trauma. S. G. SHATTUCK. *Proc. Roy. Soc. Med.* 9 3, xi, 26. [63]
- A case of partial suture of the arteria brachialis and cure of chronic suture of arteria femoralis. H. FOWLER. *Beitr. z. klin. Chir.* 9 3, lxxvii, 56.
- Mechanical ligature in surgery. LASTARIA. *Gazz. d. osp. d. clin. Milano.* 9 3, xxvii. 6.
- Ligature of the right external iliac artery and vein. HEDDER. *Monatschr. f. Geburtsh. u. Gynaek.* 9 3, xxvii, 338.
- Do infection of the wound and prolonged ligature of the limbs constitute counter-indication for vascular sutures in injuries? DAMULEV. *Zentralbl. f. Chir.* 9 3, 21, No.
- Experimental contributions to the study of the effect of bacterial toxins on the walls of blood vessels. A. LOWEN and R. DITTMER. *Ztschr. f. d. ges. exper. Med.* 9 3, 1, 3.
- Y methods in the employment of ater in the treatment of acute phlebitis. JOIN. *Clinique, Par.* 9 3, 21, No.
- Pharyngeal phlebitis. W. STUART LOW. *Clin. J.* 9 3, xii, 357.
- Röntgenographs of normal peripheral blood vessels. V. RYKIN. *Fortschr. d. Geb. d. Röntgenstr.* 9 3, xi, 39.
- Injection of the vessels and its technique. DUCH. *J. anat. f. anat. bohem. St. Petersburg.* 9 3, xxviii, Feb.
- Researches on the ductus thoracicus. J. BOCHET. *Biblioth. anat.* 9 3, xii, 66.
- Wounds of the thoracic duct in the neck with leakage. H. HORACE GRANT. *Lancet-Clin.* 9 3, 21v, 253.
- Poisons**
- Agents of infection which pass through filter and malignant tumors. B. LIPSCITZ. *Zentralbl. f. Bakteriol.* 9 3, lxxviii, 3 1.
- The importance of bovine tubercular bacilli for man. WILSON. *Berl. klin. Wchnschr.* 19 3, 1, 333.
- Our present knowledge of the relation of bovine to human tuberculosis. F. G. GRANT. *Austral. M. Gaz.* 9 3, xxvii, 275.
- The branched forms of the tubercle bacillus, and immunity to tuberculosis. S. G. DREV. *J. Am. M. Ass.* 9 3, ix, 903.
- Recognition of tuberculosis by means of animal experimentation. P. ERIC. *München. med. Wchnschr.* 9 3, ix, 87.
- A new method for the differentiation of certain of the streptococci. H. W. CROWN. *Proc. Roy. Soc. Med.* 9 3, vi, 7. [69]
- Case of acute septicaemia due to B. pyocyaneus. J. M. CLARKE. *Brit. Med. J.* 9 3, xxvii No. 9.
- Pathogenic anaerobes cerebral abscess, caused by an anaerobic bacillus etc., associated with chronic otitis,

sinus thrombosis, and cancer in the right petrous portion of the temporal bone. E. VON HENSEL. *Zentralbl. f. Bakteriol.*, 9 3, livid, 57.

Five cases of fungus poisoning. H. W. SYKES. *South African M. Rec.* 9 3, xl, 45.

Thyroidectomy. T. IGATA. *Japanische Zeitschr. f. Dermatol. u. Urol.* 9 3, xl, No.

Surgical Therapeutics

Treatment of wounds with sugar. G. MACHATZ. *München. med. Wchnschr.* 9 3, lx, 405.

Treatment of burns. R. J. GRIFITH. *Merck's Arch.* 9 3, xv, 74.

On the treatment of carbuncles, boils, staphylococcal infections, and certain streptococcal infections by the internal administration of large doses of dilute sulphuric acid. J. REYNOLDS. *Lancet Lond.* 9 3, clxxiv, 740.

The intraperitoneal employment of oil. MOSKOWITZ. *Deutsche med. Wchnschr.* 9 3, xxxv, No.

Results of operative and non-operative treatment of abdominal tuberculosis. KROHN. *Zentralbl. f. Chir.* 9 3, xl, 403. [69]

Treatment of surgical tuberculosis by Miesb. C. MICHENY. *Prag. med. Wchnschr.* 9 3, xxxvii, 2.

The treatment of traumatic tetanus by sequesterization. DUTOIT. *Deutsche med. Wchnschr.* 9 3, xxxv, N. 2.

The use of benzoin paste in the treatment of chronic suppurations. A. C. McDONALD. *Tex. St. J. M.* 9 3, viii, 203.

Non-operative treatment of malignant tumors. V. CULMSTADT. *Klin.-therap. Wchnschr.* 19 3, xl, 205.

Non-operative methods of treating malignant neoplasms. WEINER. *Berl. klin. Wchnschr.* 9 3, l, No. 2.

The action of heavy metals on malignant animal tumors. LAWRE. *Berl. klin. Wchnschr.* 9 3, l, No. 2.

Experimental contribution to the chemotherapy of malignant tumors. WEINER and SIECK. *Zeitschr. f. Chemotherapie.* 9 3, l, 257.

The effect of mercury preparations on the growth of mouse cancer. S. STANISLAW. *Wien. klin. Wchnschr.* 9 3, xxxv, 577.

Colloidal cotton in the treatment of cancer. TOUBER. *Bull. et méém. Soc. méd. de Hôp. de Par.* 19 3, No. 7, Feb. [70]

Intravenous injections of arsenic substances in animal cancer. LOUIS and FLEISCHER. *T. Am. Ass. Path. & Bacteriol.* 9 3, May. [70]

Gangrenous wounds treated by alcohol. BLANKENBACH. *Bull. med. Par.* 9 3, xxxv, N. 4.

Collargol. KAPLAN. *Deutscher Chir. Kong.* 9 3, [71]

Experimental and clinical studies on the action of hormonal. SACKUR. *Deutsche med. Wchnschr.* 9 3, xxxix, No. 9.

Synthetic hydrazin-Bayer substitute for hydrazin. THOMAS and FISCHER. H. WALTHER. *München. med. Wchnschr.* 9 3, lx, 604.

Extract of the suprarenal glands. J. SODERMAN. *N. Y. M. J.* 19 3, xxxv, 640.

Adrenal therapy in surgery and dermatology. DREWS. *Allg. med. Central Zeitg.* 9 3, lxviii, No. 2.

The action of electrical-chin. DAKEL. *Zentralbl. f. Gynäk.* 9 3, xxxvii, N.

The action of eucaplanone. CLOSTER. *Arch. f. exper. Pathol. u. Pharmacol.* 19 3, lxxi, No. 4.

Heated air in therapeutics (aerothermotherapy). ROSSER and ARRYAT. *Progrès méd., Par.* 9 3, xl, No. 9.

Surgical Anatomy

Anatomical investigations respecting the point at which certain cutaneous nerves which play an important rôle in local anesthesia perforate the aponeurotic fascia. ROSE. *Deutsche Zeitschr. f. Chir.* 19 3, cxii, Nos. 3-6.

Some anatomical considerations of the disposition of the sciatic nerve and femoral artery with suggestions as to their clinical significance. F. WOOD-JONES. *Lancet, Lond.* 9 3, clxxiv, 752.

Electrology

The chemical action of the Röntgen rays and of radium on carbonates. FRIEDRICH and KAMMER. *Wien. klin. Wchnschr.* 9 3, xxxv, 207.

The employment of radium in surgery. A. STUCKER. *Arch. f. physikal. Med. u. med. Tech.* 9 3, viii, 18.

Four years of experiments with Röntgen ray apparatus with an interrupter (rectifier) and certain important modifications of the apparatus. GABRIEL. *München. med. Wchnschr.* 9 3, lx, 477.

The chemical action of thorium X on organic substances, in particular on uric acid. FALTA and ZIMMER. *Berl. klin. Wchnschr.* 9 3, l, No. 9.

The effect of X-rays on surgical tuberculosis. NRO. *Deutsche Zeitschr. f. Chir.* 9 3, cxii, Nos. 3-4.

The practical application of electricity as therapeutic agent; constipation, headache. J. R. EYER. *Med. Summary*, 19 3, xxxv, 3.

Death by electric currents and by lightning. A. J. JEX BLAKE. *Brit. M. J.* 19 3, l, 402.

Diagnostic significance of the ultra violet rays. M. A. KOSCHERAW. *Nachricht. d. Kaiserl. militär-med. Akad.* 9 3, l, 16.

Heliotherapy. ENRO. *Montpellier méd.* 913, xxxv, No. 2.

Heliotherapy in non-tuberculous affections. ADLER. *Presse méd. Par.* 9 3, xli, No. 3.

Conditions which favor the employment of heliotherapy. JAVIER. *Lyon méd.* 9 3, cxii, No. 12.

Military and Naval Surgery

Military surgery. G. M. BURCK. *Am. J. Surg.* 9 3, xxxv, 83.

New methods in surgery and their importance in the practice of the military surgeon. PLATT. *Deutsche mil.-ärztl. Zeitschr.* 9 3, xli, 67.

The treatment of wounds caused by projectiles from revolvers and military rifles. REICHER. *Presse méd. Par.* 9 3, xli, 23.

Injury of the abdomen by Browning pistol. DEWALD. *Wien. med. Wchnschr.* 9 3, lxviii, No.

Gaseous disinfection of equipment in the field. EDW. L. MINNOM. *Military Surg.* 913, xxxv, 15.

The effect of pointed projectiles. LOTTER. *Deutsche med. Wchnschr.* 9 3, xxxix, 602.

Surgical Diagnosis

Chemical properties of urine in cancer of the internal organs and their importance from the diagnostic point of view. VOUR. *Pract. Vrach. St. Petersburg.* 9 3, xl, No. 7.

Reflex pains in internal affections and their diagnostic significance. O. POKORSKY. *Klin.-therap. Wchnschr.* 9 3, xl, 240.

GYNECOLOGY

Uterus

The fight against cancer of the uterus. LITGANO. Siglo med., Madrid, 9 3 ix, No. 309.

Cancer and sarcoma of corpus uteri in 57 year-old patient. H. HEDENRÖD. Deutsche med. Wchnschr. 9 3 xxiiv, 488.

Non-surgical treatment of cancer. A. TREIBER. Berl. klin. Wchnschr. 9 3 i, 248.

The extended vaginal operation for cancer of the cervix uteri. GEORGE GILLISSEN. Surg., Gynec. & Obst., 9 3 xvi, 284. [72]

The radical operation for cancer of the uterus. THOMAS S. CUTLER. Surg., Gynec. & Obst., 9 3 xvi, 265. [72]

The radical abdominal operation for cancer of the uterus. JOHN O. CLARK. Surg., Gynec. & Obst., 9 3 xvi, 55. [73]

The extended abdominal radical operation for cancer of the uterus. WILLIAM WICKEL. Surg. Gynec. & Obst., 9 3 xvi, 51. [73]

Extirpation of the cancerous uterus by the vulvoperineal route. P. UCHET. Arch. prov. de chir., Par. 9 3 xii, No. 2.

Results of the radical abdominal operation for cancer of the uterus cervix report of 3 cases. JOHN A. BARNUM. Surg., Gynec. & Obst., 9 3 xvi, 304. [74]

Results after the Wertheim operation for carcinoma of the uterus. J. CRAIG NIEL. Surg., Gynec. & Obst., 9 3 xvi, 203. [74]

The study of six cases of malignant chorio-epithelioma. PELLERON and VIOLET. Lyon chir. 9 3 ix, 233. [75]

The relation between sarcoma of the uterus and its bearings on X-ray therapy of uterine myomata. JAMES RAGLAN MILLER. Surg. Gynec. & Obst., 9 3 xvi, 15. [75]

Radiology of myomata. FOWA DE COURMELLER. Fortschr. a. d. Geb. d. Röntgenstr. 9 3 ix, 9.

X-ray treatment of myomata of the uterus. LAZYER KIRKE and DICKENS. Fortschr. a. d. Geb. d. Röntgenstr. 9 3 ix, No.

The treatment of myomata of the uterus. GUILLEMINOT. Fortschr. a. d. Geb. d. Röntgenstr. 9 3 ix, No.

Surgical treatment of myomata. K. FLEISCHMANN. Wchn. klin. Wchnschr., 9 3 xxi, 445. [76]

Etiology of fibrosarcoma of the uterus. ADLER. Progrès méd., 9 3 xiv, N.

Fibrosarcoma of the uterus presenting unusual characters. GILLES. Proc. Roy. Soc. Med., 9 3 vi, 24.

Red degeneration of uterine fibrosarcoma. SMITH and SNAW. Proc. Roy. Soc. Med., 9 3 vi, 3. [77]

An unusual train of symptoms caused by uterine fibroids. V. HENRY. J. Okla. St. M. Ass. 9 3 47.

The radical treatment of uterine fibroids based on their association with malignancy. R. E. SUTEL. Cleveland M. J. 9 3 ix, 66.

Malignancy in uterine hemorrhages. VON DER HORST. Nederl. T. blaar. Geneesk., 9 3 i, 806. [78]

Non-perforated uterine bleeding. C. C. ELLIOTT. South Africa Med. Rev., 9 3 xi, 44.

Further report of cases of dysmenorrhea relieved by nasal treatment. BRITTAUER. T. Am. Gynec. Ass. 9 3 May. [77]

Foreign bodies in the uterus. KATZMANN. Act. Ztg., 9 3 ix, 342.

The management of uterine displacement. R. J. BAZZ. J. Okla. St. M. Ass. 9 3 452.

The relaxation of the cervix in the surgical treatment of anteversion of the uterus. DELLE CHIAIE. Arch. Ital. de gynec., 9 3 xvi, 30.

Uterine inversion and its treatment. PEROTTO. Impress. med., Sao-Paulo, 9 3 xii, No. 3.

Preference of operations for retroversion. J. M. LOR. Texas St. M. J. 9 3 viii, 207.

Operations for uterine prolapse compared. A. W. ARNOTT. J. Lancet, 9 3 xxiiv, 71.

Rupture of the uterus. BARTON COOKE HUNT. Surg. Gynec. & Obst., 9 3 xvi, 330.

Use and abuse of the uterine curette. BILLIE C. EAK. Texas St. M. J. 9 3 viii, 268.

Uterine curettage. J. D. SOUTHWICK. Med. Council, 9 3 xvi, 1.

The technique of curettage. HELL. Wchn. med. Wchnschr. 9 3 xvi, 100.

The technique of abdominal hysterectomy. N. F. LANE. Hahnemann Month. 9 3 xiv, 307.

Some points in the technique of complete hysterectomy. P. B. SALATON. New Orleans M. & S. J. 9 3 lvi, 640.

Description of Murphy's method of abdominal hysterectomy. J. B. MURPHY. Surg. Clin. J. B. Murphy 9 3, 11. [77]

Adnexal and Peritestic Conditions

Clinical and experimental contributions on the question of the so-called ovarian insufficiency. MONASTACH and MAYER. Monatsschr. f. Geburtsh. u. Gynäk., 9 3 xxiiv, No. 2.

A case of ovarian tumor of rare localization. DELLECHIAIE. Gynecologie, Par. 9 3 xvi, No. 1.

A successful method of treatment in case of sarcoma (recurrent) of the ovary which had invaded the vertebral column. BACKLUND. München. med. Wchnschr. 9 3 ix, No.

Sarcoma of the ovary in nursing. LEROUX and GIRAULT. Arch. de Méd. des Enfants, Par. 9 3 xvi, N. 2.

A case of pure cholesteatoma of the ovary. CHAPUIS. Arch. de méd. exp. et d'anat. pathol., Par. 9 3, xiv, No.

Neuro-epithelioma of the ovary. GOSSET and MANSOUR. Rev. de Gynec. et de Chir. abdom., 9 3 ix, [78]

A case of primary fibro-sarcoma of the ovary. FRIE. GIBSON. Med. Press & Circ. 9 3 cxvi, 305.

Parovarian cyst associated with peritoneal tuberculous. PERIN. Monatsschr. f. Geburtsh. u. Gynäk. 9 3, xxiiv, 523.

Voluminous cyst of the ovary; their differential diagnosis. MARINELLI. Gazz. d. osp. d. clin., Milano, 9 3, xxiiv, No. 8.

Chronic appendicitis and sclerocystic ovaries. LAMBERT. Arch. soc. d'Obst. et de gynec., Par. 9 3, ii, No. 2.

Hemorrhage as sequela of the rupture of cyst of the corpus luteum. BREVIN. Monatsschr. f. Geburtsh. u. Gynäk. 9 3, xxiiv, 53.

The so-called strangulated hernias of the adnexa. MATTHEY. Ber. z. klin. Chir. 9 3 lxviii, No.

The bearing of intralutal lesions on operability, prognosis of tuberculous adnexitis (especially lesions of the small luteum). DESCOITRES and OLIVIER. Lyon med. 9 3 cxi, No. 1.

The conservative treatment of salpingitis by uterine and tubal injection. I. S. BROVKE. *J Am M. Ass.*, 9 3, 696.

Shortening the uteromaxillary ligaments. H. GRAD. *N. Y. M. J.* 9 3, 307, 544.

Vasectomy of the broad ligaments simulating extra uterine pregnancy. VON DITTEL. *Rev. méd. d'Egypte*, Cairo 9 3, 1, No. 2.

On the nature of the so-called ligaments of Mackenrodt. MOURIZ. *J Obst. & Gynec. Brit. Emp.*, 9 3, 220, 15 [79]

Pelvic inflammations can be abated if not aborted. V. B. HANSEN. *Mass M. J.* 9 3, No. 3, 85.

External Genitalia

Malignant primary tumors of the vagina. VILKRODT. *Arch. mens. d'obst. et de gynéc.* Par. 9 3, 8, No. 1.

Vesico-signal fistula. MAULAUER. *Progrès méd.* Par. 9 3, 28, N. 3.

A modification in the treatment by tamponment. KRAUS. *Gynak. Rundschau*, 9 3, vii, No. 5.

Hematomas vulvae. TIGHE. *Deutsche med. Wchnschr.* 9 3, 2000, 67.

Pruritus vulvae. A. STEIN. *Merck Arch.*, 9 3, xv, 76.

Valvo vaginitis in children. EDITH R. SE. *Childs.* *Am. J. Dis. Child.*, 9 3, 215 [79]

Valvovaginitis in children. VALLENT. *Cas. Mèd. École. Prag.*, 9 3, 10, No. 7.

A case of cyst of the labia minora. TOURNAUX. *Toulon méd.* 9 3, xv, No. 4.

Operation for the cure of rectocele and restoration of the function of the pelvic floor. GEORGE J. WARD, J. T. *Am. Gynec. Ass.*, 9 3, May [80]

Perineorrhaphy with the figure-eight suture. CHAS. C. CHILDS. *J Am M. Ass.*, 9 3, 12, 894.

Miscellaneous

X-ray treatment in gynecology. HENRI. *Momat. schr. f. Geburtsh. Gynak.* 9 3, 2000, N. 3.

The progress of X-ray treatment in gynecology: its advantages, exact technique; indications and contraindications, results, future. H. BOUQUET. *Fortschr. a. d. Geb. d. Röntgenstr.* 9 3, 22.

Röntgenotherapy in gynecology. DRELLING. *Fortschr. d. Geb. d. Röntgenstr.*, 9 3, 22, No.

Gynecological röntgenotherapy: experience with it, technique, and the results obtained. HANFMAN. *Fortschr. a. d. Geb. d. Röntgenstr.* 9 3, 22, No.

The treatment of leucorrhoea due to gonococcal infection. E. McDONALD. *Am. Med.* 9 3, 22, 57 [80]

Progress of the study of diseases of women during 1911. FREDERICK J. MCCART. *Practitioner Lond.*, 9 3, 22, 595.

The conduct of gynecological and obstetrical operations in the presence of acute chronic endocarditis. JOHN C. FORAN. *T. Am. Gynec. Ass.* 9 3, May [80]

Methods of physical treatment in gynecology. FRANK ZIEGLER. *Arch. Fortbild.*, 9 3, 2, 37.

Etiology and treatment of pyelitis in the female. KOLMER. *Deutsche med. Wchnschr.* 9 3, 2000, 43 [80]

Foreign bodies in the female urinary bladder. JOSE SEIGER. *Ztschr. f. gynak. Urol.*, 9 3, 14, 9.

The influence of the social factor upon the origin of tumors. A. TROTSCHER. *Krankh. u. Ges. Lige.*, 9 3, 12, 608.

Reflex pains provoked by pressure on the corollae plicae in inflammatory affections of the genital organs in women. ALMEIDA. *Zentralbl. f. Gynak.* 20 3, 2000, No. 2.

The genital functions of the ductless glands in the female. W. B. BELL. *Brit. M. J.* 9 3, 1, 645.

Bacteriology of the female genital apparatus. BRINK. *Gynak. Rundschau*, 20 3, vii, No. 5.

A case of feminine pseudo-leucorrhoea. CANTONIA. *Gazz. d. osp. d. clin. Milano*, 9 3, 2000, No. 5.

Genital localization of micro-organisms in experimental septicaemia. SELLA. *Ann. di ostet. ginec. Milano*, 9 3, 2000, No. 5.

OBSTETRICS

Pregnancy and Its Complications

Alderthalien. serodiagnosis of pregnancy and its practical application. HENRY SCHWARTZ. *Internat. M. J.* 9 3, 22, 95.

Psychoses of pregnancy and the influence of pregnancy on existing psychic and neurologic diseases. J. L. H. EUGELING. *Nederl. T. jchr.*, verloskunde en gynacol., 9 3, 22.

Report of case of pregnancy with hydranionion. S. J. D. *Internat. Am. Med.* 9 3, 22, 90.

Myoma and pregnancy: the theoretical indications. G. T. HARRISON. *N. Y. Med. Month.*, 9 3, 2000, 60 [81]

Myoma and pregnancy. HAUER. *Klin. therap. Wchnschr.* 9 3, 22, 217.

Myomectomy in case of gravid uterus, recovery continuation of gestation. VILKRODT. *Gaz. d. Gynec.*, 9 3, 2000, 2.

Pyrexia and pregnancy. OSBORN READING. *Med. World.*, 9 3, 2000, 0.

Treatment of pyelitis in the pregnant. H. BOUQUET. *Nederl. T. jchr.*, Gynecol. 9 3.

Bladder troubles in pregnancy. A cystoscopic study based on 54 cases. E. McDONALD. *Am. Med.* 9 3, 22, 50 [81]

Appendicitis during pregnancy: report of three cases. CATTURANI. *Arch. ital. di ginec.*, Napoli, 1911, xvi, No. 2.

Quinck's disease and pregnancy. BALLOUARD. *Ann. di ostet. ginec.*, Milano, 9 3, 2000, 240.

Glycosuria and diabetes from the obstetrical and gynecological point of view. COLOMBI. *Ann. di ostet. ginec.*, Milano 9 3, 2000, No. 2.

The conduct of gynecological operations; also of pregnancy and labor in acute and chronic affections of the heart. WISSENER. *T. Am. Gynec. Ass.*, 9 3, May [81]

Diagnosis and treatment of ectopic gestation. J. C. McFEE. *J. Kansas M. Soc.*, 10 3, 218.

Ectopic pregnancy occurring twice in the same patient. A. ARONSON. *Austral M. Gaz.* 20 3, 2000, 12.

Ectopic pregnancy and intraperitoneal hemorrhages from ovaries etc., particularly those of the corpus luteum. REINHARDT. *Gynak. Rundschau*, 9 3, vii, No. 6.

Pregnancy after uterine gestation. NORMAN DODGE. *Austral M. Gaz.*, 9 3, 2000, 4.

1 (extra-uterine pregnancy) *Surfact* Zentralbl. f. Gynäk., 93, xxviii, No. 9.

The early recognition of extra-uterine pregnancy. R. C. CAMPBELL. *Halsbein* Monatsh., 93, xliii, 303.

Extra-uterine pregnancy. KOCHER. *J. akrob. Jenk. bolles* St. Peterb., 93, xxvii, Feb.

Extra-uterine pregnancy during the early months. J. M. LEE. *J. Am. Inst. Homoeopathy*, 93, 364.

Extra-uterine pregnancy and appendicitis. CH. ROY. *Arch. méd.-chir. de Province, Poitiers*, 93, III, No.

The surgical importance of the vessels of acromioclavicular in extra-uterine pregnancy and in abdominal tumors. GOUDRIER. *J. akrob. f. Jenk. bolles* St. Peterb., 93, xxvii, Feb.

Case of ovarian pregnancy with full term fetus. GRISWOLD. *J. Obst. & Gynec.*, Brit. Emp., 93, xix, 5. [83]

Eclampsia. C. J. BRIDGES. *Clinique*, 93, xxiv.

Etiology of eclampsia. L. V. SAMP. *J. Kansas M. Soc.* 93, xli, 66.

Dangers to the kidneys in eclampsia. A. ZIEGLER. *Berl. Klin. Wchnsch.* 93, I, 388.

Pathogenesis and treatment of eclampsia. V. J. J. REW. *Zentralbl. f. Gynäk.* 93, xxvii, 30.

Eclampsia and its treatment. A. LAMBERT. *Schwabe Rundschau* f. Med., 93, xix, 402.

Treatment of eclampsia by intralumbal injections of normal pregnancy serum. A. MAYER. *Zentralbl. f. Gynäk.* 93, xxvii, 307.

Injections into the spinal cord for the treatment of eclampsia. G. GONZALEZ. *Zentralbl. f. Gynäk.* 93, xxv, 359.

The conservative treatment of toxemia of pregnancy with convulsions. G. REY. *Boston M. & S. J.* 93, cxviii, 376. [84]

The present position of abdominal Cesarean section in eclampsia. J. T. WILLIAMS. *Boston M. & S. J.* 93, cxviii, 436. [84]

The indications for abdominal Cesarean section with the technique of the operation and analysis of 35 cases. R. M. PIERSON. *N. Y. St. J. Med.* 93, xxi, 35.

Abdominal Cesarean section in eclampsia and central placenta previa. His reports of cases so treated. E. M. WILLIAMS. *New Orleans M. & S. J.* 93, lxx, 635.

Lat. Cesarean section in case of contracted pelvis. SOUTO. *Arch. Brasil de med.* Rio de Janeiro, 93, li, 6.

An interesting case of Cesarean section. HARRIS. *M. O'Han. Med. Press & Circ.* 93, cxli, 3.

Sixteen cases of Cesarean operation. NOVILOR. *J. akrob. f. Jenk. bolles*, St. Peterb., 93, xxvii, Feb.

The application of the Cesarean operation to infected uteri. D. BOYER. *Seminars* f. Med., 93, xxi, No.

Cesarean section in double uterus and double vagina. MOTT. *Am. J. Obst.*, N. Y., 93, lxxv, 59.

Experimental investigations on the dangers resulting from miscarriages and their prevention. WOLFF. *Lanz. München med. Wchnsch.* 93, li, 9.

Protrusion of the pregnant uterus. REID. *Clinique Par.* 93, li, 9.

Uterus bicornis as cause of chronic transverse position. C. H. VAN KILLEN. *Zentralbl. f. Gynäk.* 93, xxvii, 45.

Placenta previa. H. M. CAMPBELL. *W. Va. M. J.* 93, li, 9.

8 years of recent investigations of placenta previa. C. GILLES. *Clinique* 93, xxiv, 27.

Surgical treatment of hemorrhages in pregnancy delivery and be third stage of labor. BIR. *Gynäk. Rundschau* 93, x, 5.

Labor and Its Complications

Indications for the use of forceps. H. C. GRANT. *W. A. M. Semi-Month.* 93, xlvii, 59.

When is the high forceps operation justifiable. J. A. HARRIS. *Bull. Lying-In Hosp.*, N. Y., 93, li, 86.

Force presentations in obstetrics. F. B. GRISWOLD. *Elect. M. J.* 93, lxxvii, 5.

Face presentation. C. D. R. KILB. *Elect. M. J.* 93, lxxvii, 36.

Breech presentation. GEO. B. KILB. *Clinique* 93, xxiv, 3.

The relation of the different artificial deliveries to each other. P. C. T. HOSVY. *Monatsh. f. Geburtsh. u. Gynäk.* 93, xxvii, 359.

Under what conditions should term inertia be treated by artificial delivery? CRAGG. *T. Am. Gynec. Ass.* 93, May. [85]

Uterine inertia its treatment. HARRISON. *T. Am. Gynec. Soc.*, 93, May. [86]

Foetal overgrowth and its significance in labor. G. W. KOENIG. *N. Y. St. J. Med.* 93, xlii, 28.

Case of rupture of vaginal fornix during labor. E. V. BYRON. *Zentralbl. f. Gynäk.* 93, xxvii, 369.

Rupture of the uterus. B. F. KOEHLER. *Niederl. gynäcol. Ges., Stroomberg* 93, Feb. 9.

The delivery of the placenta and membranes. LOCH. *F. M. N. Y. St. J. Med.* 93, xlii, 4.

Sekakom as prophylactic in the third period of labor. W. J. GONZALEZ. *Zentralbl. f. d. ges. Therap.* 93, xvi, 69.

Radical and conservative methods in obstetric treatment. G. W. KOENIG. *Med. Rec.* 93, lxxvii, 54.

Puerperium and Its Complications

Puerperal eclampsia. A. P. BUTT. *W. Va. M. J.* 93, viii, 307.

Puerperal eclampsia. WOLFF. *Am. J. Clin. Med.* 93, xi, 8.

Puerperal infection of the uterus. W. ZANGEMEISTER. *Deutsche med. Wchnsch.* 93, xxvii, 729.

The puerperium and its relation to puerperal fever. G. T. BRIDGES. *Indian M. Gaz.* 93, xlii, 94.

The treatment of puerperal sepsis in the Sloane Hospital for Women. WARD. *Am. J. Obst.* N. Y., 93, lxxv, 464.

The local treatment of fresh puerperal infection. A. AUGUSTIN. *Transact. M. J.* 93, viii, 306.

Treatment of puerperal thrombophlebitis. FOLLY. *T. Am. Gynec. Ass.* 93, May. [87]

Miscellaneous

T. hundred obstetrical cases - dissections therefrom and remarks on unusual cases. L. H. MORTIMER. *J. Okla. St. M. Ass.* 93, 466.

The obstetrician and the perineum his care of during and after labor. A. E. COX. *J. Ark. M. Soc.*, 93, li, 3.

Factors in the formation of skin striations during pregnancy. F. Q. T. CHEN. *T. Am. Gynec. Ass.* 93, May. [88]

Demonstration of the infant palmator. His remarks on its use in the treatment of asphyxia neonatorum. H. D. F. T. *Am. Gynec. Ass.* 93, May. [89]

Forced oxygen respiration for combating asphyxia in the new-born. F. E. GILLES. *N. Y. Med. Klin.* 93, li, 3.

The central temperature of the new-born and the premature born. F. APER. *Norriton*, 93, li, 30.

Immediate treatment of depressed fractures of the skull in the new born. G. W. KOWAL. *Bull. Lying-In Hosp. N. Y.* 9 3, 34.

Etiology, symptomatology, and surgical treatment of meningeal hemorrhages in the new born. J. DOLY. *Arch. gen. d. chir.* 3, vii, [88]

Treatment of epiphora in the suckling. A. LAY. *Brvo. L. enhancer.* 9 3, 1, 38.

Menstrual disorders. V. KROZ. *N. berl. gyn. chronik.* Stungaber 9 3, Mar 9.

Demonstration of fetuses with solid embryos of coccyx. E. AULBORN. *München med. Wochenschr.* 9 3, 667.

The inflammatory nature of placental chorio-angiomas (benign tumors of the placenta). PLACON and S. VY. *Arch. med. d. obst. et de gynéc.* Par. 9 3, 8, No. 3.

The pathogenesis of changes of inclination of the pelvic basin. I. RAUHAL. *München med. Wochenschr.* 9 3, 12, 570.

Chronicitis in the uterine wall eighteen years after the first pregnancy. K. V. *Am. J. Obst. N. Y.* 9 3, 411.

Stenosis in the female uterus and treatment, its report of case of instrumental unperforation. E. McDONALD. *Am. Med.* 9 3, 2, 4.

The effect of producing sterility by operation on the fallopian tubes. LEONARD. *Am. J. Obst. N. Y.* 9 3, 411.

Death occurring after Momborg hemorrhoids. G. STER. *Arch. Med. Klin.* 9 3, 1, 66.

Mothers and their offspring treated with salvarsan. M. HOLTE. *Deutsche med. Wochenschr.* 9 3, xxxix, 46.

The use of fetal serum to cause the onset of labor. A. J. ROSS. *N. Y. St. J. Med.* 9 3, xii, 9.

On the action of placenta and histamine on the isolated uterus. H. F. C. *Therap. Monatsh. Berl.* 9 3, xxvii, 20.

The isolated effective substances of the hydropyrene. H. F. C. *Therap. Monatsh. Berl.* 9 3, xxxix, 29.

Hydropyrene extract in obstetrics. PAR. *Gaz. d. op. d. chir. Milano.* 9 3, xxxix, 24.

On the action of hydropyrene extract. F. LIEBER. *Zentralbl. f. Gynäk.* 9 3, xxxix, 337.

Pituitary extract in the treatment of placenta previa. F. GALL. *Zentralbl. f. Gynäk.* 9 3, xxxix, 334.

Pituitary extract in uterine inertia. J. C. EDGAR. *T. Am. Gynec. Ass.* 9 3, 313.

Artemisinin in obstetrics. J. BORRER. *Ann. d. med. veter.* 9 3, vii, 55.

A new obstetrical rubber bag. F. L. GORD. *Surg. Gynec. & Obst.* 9 3, xvi, 529.

Histologic diagnosis of pregnancy. E. EDGEMOND. *München med. Wochenschr.* 9 3, 12, 587.

Diagnosis of early pregnancy. L. M. DONALD. *Am. Med.* 9 3, xii, 69.

GENITO URINARY SURGERY

Kidney and Ureter

The suprarenal capsules and their relation to convulsive states and with special consideration of epilepsy. T. SILVARE. *Gaz. d. op. d. chir. Milano.* 9 3, xxxix, 201.

Microscopic anatomy of the kidney. A. LANDAU. *Progr. med. Par.* 9 3, 21, 30.

The exact diagnosis of renal and ureteral calculi. C. EASTMAN. *Urol. & Uter. Rev.* 9 3, xvi, 3.

Statistics and etiology of floating kidney. K. N. STAS. *Kewk. Arch.* 9 3, 22, 86.

Newer views relating to the subject of loose kidney. R. T. MORRIS. *Post-Graduate.* 9 3, xxxix, 244.

The right kidney—a distracting factor in the diagnosis of acute mitral bicuspidal condition. W. L. PEARCE. *N. M. Bron. Mon. b.* 9 3, xvi, 60.

Incubation of the renal pelvis and ureter. J. D. CAGLE. *T. Am. Ass. Genito-Urin. Surg.* 9 3, 3, 17.

Symptoms of intestinal occlusion in nephritic colic. QUINN. *Bull. med. Par.* 9 3, xxxix, 18-9.

Renal hemorrhoids. H. L. ELLER. *N. Y. St. J. Med.* 9 3, xii, 44.

Hypernephroma of the kidney. HARTUNG. *Deutsche Ztschr. f. Chir.* 9 3, cxi, Nos. 3-6.

The cystic kidney question. O. MEERER. *Arch. d. pathol. Anat. Physiol.* 9 3, cxi, 265.

Operation in case of renal cyst. THORNDIKE. *Hosp. Tkt. Kitchin.* 9 3, iv, 3.

A case of hydatid cyst of the kidney. PLETTER and GARD. *Mar. med.* 9 3, 1, No. 6.

Hydatid cyst of the left kidney. nephrectomy; recovery. DIAMANTIS. *Rev. med. d'Egypte. Cairo.* 9 3, 1, No.

Pneumia. R. OPPENHEIMER. *Ztschr. f. urol. Chir.* 9 3, 1, 7.

Tuberculosis of the kidney. W. KARO. *Urol. & Uter. Rev.* 9 3, xi, 20.

Timeliness of diagnosis and intervention in renal tuberculous. BARRY. *J. d. Urol. Pa.* 9 3, 10, No. 3.

The diagnosis of renal tuberculosis. STARR. *Cron. med. Valence.* 9 3, xiv, 9.

Tuberculous and nephrectomy in renal tuberculosis. DE LA PENA. *Rev. de la med. y cir. pract. Madrid.* 19 3, xxxix, No. 259.

Ubiatous and infection of the renal pelvis. VORLICKER. *Ztschr. f. urol. Chir.* 9 3, 1.

The pathological physiology of renal decapsulation and its indications and contra-indications for the operation. P. A. EITZINGER. *Am. J. Urol.* 9 3, 12, 34.

Unilateral and bilateral renal decapsulation. PARKER. *Med. Klin.* 9 3, ix, No. 9.

Operative treatment of nephritis. HERR. *Deutsche med. Wochenschr.* 9 3, xxxix, No.

Contribution to the surgery of the nephrotides. A. PUCHNER. *Berl. klin. Wochenschr.* 9 3, 1, 35.

Lumbar nephropathy. TEVA. *Polichia Roma.* 9 3, 22, No. 2.

Nephropathy by suspension. Its transplanted fascis. K. HIRSCHBERG. *Arch. d. klin. Chir.* 9 3, c, 62.

The future of nephrectomized patients. BARRY. *Bull. med. Par.* 9 3, xxxix, No. 8.

Pyelotomy with incision of the anterior wall of the renal pelvis. LILLYER. *Zentralbl. f. Chir.* 9 3, 21, No.

How to treat the wounds secondary to pyelotomy. BASTIANELLI. *Zentralbl. f. Chir.* 9 3, 21, No. 2.

Experiences with transplantation of kidneys. MIAZZELLI. *Chir. d. Acad. d. med. di Torino* p. 184 1917 No. 2.

Demonstrations in surgery of the kidneys. W. ISRAEL. *Zschr. f. Urol.* 9 3, vii, 26.

The clinical value and interpretation of the constant in surgery of the kidney. LUGGER. *Progr. med.* Par. 19 1, 28, No.

The clinical value and interpretation of the constant of urea secretion. LUGGER. *J. d. Urol.* 9 3, vii, 39 [95]

On methods of functional examination of diseased kidneys. JAKOVLEV. *Russk. Vrach.* 9 3, 8, No. 6.

The function of the kidney, based on microscopic observations of the living organisms. M. GHEORG. *Arch. f. d. ges. Physiol.* Bonn 9 3, cl, 405.

Tests for renal efficiency by means of phenolsulphophthalein. FROSTEN and ROSS. *München med. Wchnsch.* 9 3, ix, 583. [96]

Functional test of the kidneys by means of phenolsulphophthalein. E. LARZ. *München. med. Wchnsch.* 19 3, ix, 510.

The influence of collargol injection into the kidney and kidney pelvis. G. STRASSMAN. *Zschr. f. urol. Chir.* 9 3, 4, 26. [96]

Pyelography in case of putrefaction caused by collargol in the striated tubules of the kidney and in the malpighian corpuscles. THORIN. *Hygiea, Stockholm.* 9 3, lxxv, No.

Two clinical lectures on calculus in the upper urinary tract. F. J. STEWARD. *Chir. J.* 9 3, xi, 390.

Treatment of ureteral intubation. F. VOLCKNER. *Zschr. f. urol. Chir.* 9 3, 1.

Ureteral obstruction. BENJAMIN TERRY. *Boston M. & S. J.* 912, clxxvi, 373.

Supernumerary ureters. F. WLOFF. *Deutsche Zsche.* f. Chir. 9 3, cxvi, Nos. 5-6.

Mycosis of the ureter and multiple kidney mycosis. BACCHINIA. *Nederl. Tijdschr. Geneesk.* 9 3, 405.

Tuberculosis of the urinary system in women. EDW. H. RICHARDSON. *La M. Sem.-Monthly.* 9 3, xvi, 573.

A case of excision of the iliac ureter; nephrectomy-recovery. PIRARD. *Arch. prov. de chir. Par.* 9 3, xiii, No.

Bladder Urethra and Penis

Vesical calculus. EVA L. KATZ. *Long Island M. J.* 9 3, vii, 89.

Histology of the Egyptian vesical calculi. PRINCE. *Deutsche Zsche. f. Chir.* 9 3, cxvi, Nos. 3-4.

Vesical calculi and direct vesico-cystostomy. FERRIS. *J. d'Urol.* Par. 19 3, vi, No. 3.

Cystostomy in cases of bladder stone. G. MARKOV. *J. d'Urol. Par.* 1913, vi, 3.

A haemip in the bladder. LUGGER. *J. d. prakt. med.* Par. 913, xvi, N. 9.

Three unusual cases of rupture of the bladder. G. WOOLLEY. *T. Am. Surg. Ass.* 19 3, May. [96]

The radical treatment of congenital diverticulum of the bladder. J. M. VAN DAM. *Beir. z. klin. Chir.* 9 3, lxxviii, 130. [97]

Congenital diverticulum of the bladder with contractile epithelioid cells. L. BURGESS. *Urol. & Cutan. Rev.* 9 3, xvi, 35.

A case of malignant tumor of the bladder presenting syncytial structure. BLOCHER and MARKOV. *Zschr. f. Urol.* 9 3, vii, 269.

Vesical tumors among workmen employed in sulfate factories. A. LARZ. *Zschr. f. Urol.* 9 3, vii, 263.

Sidigraphic demonstration of vesical tumors. KELLY and LARZ. *Surg. Gynec. & Obst.* 9 3, xvi, 308. [97]

Cysts of the urinary bladder. R. HOTTIGER. *Folia urol. Leipzig.* 9 3, vii, 453.

Etiology of cystitis and emphysematous contribution to gas forming bacteria of the colon group. S. SCHROEDER. *Frankfurter Zsche. f. Pathol.* 9 3, xii, 89.

The treatment of cystitis in women, with remarks on the practical value of the cystoscope. E. McDOWALL. *Am. Med.* 9 3, xvi, 50.

Excision of the urinary bladder on account of tuberculosis. L. CASPAR. *Berl. klin. Wchnsch.* 9 3, i, 498.

Sequels of gangrenous inflammation of the bladder. STRICKOFF. *Kazin. med. J.* 9 3, xii, No. 5.

A case of syphilis of the bladder. PROCK. *Zschr. f. Urol.* 9 3, vi, No. 3.

Primary nature of the bladder. H. A. MOORE. *Urol. & Cutan. Rev.* 9 3, xvi, 133.

Excision of the bladder on operation of security and expediency. C. H. MA. O. T. *Am. Surg. Ass.* 9 3, May.

On direct cystostomy. G. LARZ. *Zschr. f. urol. Chir.* 9 3, 4, 26.

Suprapubic cystostomy. C. G. COMSTON. *N. Y. M. J.* 9 3, cxvii, 646.

Further remarks on the modification of the Cusco-Hertz Boyer Horschlag procedure for the treatment of vesical catarrhy. Hich I have proposed. LARZ. *Arch. ital. di ginec.* Napoli 9 3, xvi, No.

A case of ectropion of the bladder, treated by the operation of Hertz Boyer Horschlag. A. GOMART. *Bull. et mem. Soc. de chir. de Par.* 9 3, xxxix, 89.

The dangers of rapid and complete evacuation of the bladder in prostatic subjects who present complete retention. C. N. GUTRI. *Rev. Ibero-americana de ginec. med.* 9 3, xvi, 33.

Removal of stone in old men. S. P. DELAUF. *New Orleans M. & S. J.* 9 3, lvi, 632.

Affections of the urethra. E. ROUCAVROL. *Zschr. f. Urol.* 9 3, vi, 8.

Clinical manifestations of leucosis of the crest of the urethra (colliculus seminalis). VAMBRILLY. *Chir. Arch. Vekambrova, St. Petersburg.* 9 3, xiii, No. 1.

A rare type of foreign body in the urethra in man. H. ULL. *München. med. Wchnsch.* 9 3, ix, 530.

Urethral and vesical irrigation. H. W. HOWARD. *Northwest Med.* 9 3, 77.

Surgical anatomy of the crest of the urethra (colliculus seminalis). CHIR. ROUCAVROL. *Chir. Arch. Vekambrova, St. Petersburg.* 9 3, xiii, No.

Induratio penis plastica. M. ZUR VIEREN and K. SCHNEIDER. *Deutsche Zsche. f. Chir.* 9 3, cxvi, 293.

A peculiar form of plastic surgery of the penis. JAKOVLEV. *Med. Khim.* 9 3, ix, No. 1.

Operative treatment of cancer of the penis. J. ZOLSKEL. *Pract. chir. f. ginec.* 9 3, vii, 30.

Genital Organs

Sexual calculi stimulating nephroblastomas. JAKOVLEV and STRASSMAN. *Surg. Gynec. & Obst.* 9 3, xvi, 30. [98]

Chronic seminal vesiculitis. A. ILLMAN and A. S. SANDERS. *N. Y. M. J.* 9 3, xvi, 65.

Catheterization of the ejaculatory ducts. G. LARZ. *Clinique Par.* 9 3, No. 7 98. [99]

Sidigraphy of the seminal ducts. Wm. T. BELLFIELD. *J. Am. M. Ass.* 9 3, ix, 800.

The presence of tubercular bacilli in the urine in tuberculous of the testicles. LÖWENSTEIN. *Deutsche med. Wchnsch.* 9 3, xxxix, 499.

Devision's operation for undescended testicle. H. B. GIBNEY. *New Orleans M. & S. J.* 9 3, lvi, 642.

Modification of the surgical treatment of cryptorchidism. **FRANKOW** *Kasan med. J* 9 3, xii, No. 5.

Experimental investigations on the effect of radiological treatment of the testicles and the prostate gland. **L. ZINDEL**. *Zschr f urol Chir* 9 3, 6, 75.

A contribution to the diagnosis of prostatic calculi. **W. M. BURCHARDT**. *Med. Rev. of Rev* 9 3, xix, 63.

Remarks on the diagnosis and treatment of diseases of the prostat and verumontanum. **JOHN R. CATTLE**. *Illnesses M. J* 9 3, xvii, 270.

Four cases of prostatic disease. **W. HUTCHINSON**. *Am. J. Urol* 9 3, ix, 35.

The treatment of the prostatic enlargement. **G. M. ALTHEIM**. *Urol. & Cutan. Rev* 9 3, xvii, 37.

Isodiphenylamine in prostatitis. **FRANKEL**. *Munchen. med. Wchnsch.* 9 3, ix, No. 2.

Tuberculosis of the prostate gland. **ARTHUR GOTTZ**. *Folia urol. Leipzig* 9 3, vii, 300.

Diagnosis of prostatic hypertrophy. **PERRY BRONFMAN**. *J. Tenn. St. M. Ass.* 9 3, 4, 435.

Symptomatology and pathology of prostatic hypertrophy. **E. O. SMITH**. *Lancet Clin.* 9 3, civ, 55.

Treatment of prostatic hypertrophy. **P. CHIFF**. *Rev. med. d'Egypte Cairo*, 9 3, 1, No. 1.

Surgery of atrophied prostate. **H. L. POSNER**. *Zschr. f. Urol.* 9 3, 277.

Prostatectomy in stages. **LEONIEU**. *Chirurgie Par.* 9 3, li, N.

Prostatectomy — suspension of the bladder. **GEO. E. ANDERSON**. *Canad. M. Ass. J.* 9 3, xl, 67.

The after-treatment of suprapubic prostatectomy. **G. KOLLMACHER**. *Surg. Gynec. & Obst.* 9 3, xvi, 332.

A procedure for the free castration of cancer of the prostate. **CLAYTON CHAMBERLAIN**, and **F. VOL.** *J. d'Urol. Par.* 9 3, vii, No. 3.

Some practical considerations in prostatic surgery. **Wm. M. WILKINS**. *Colo. Med.* 9 3, x, 72.

Spontaneous gangrene of the genital organs in men and in women. **SEALLMANN THIER**, and **BERNARD**. *Parasitol.* 9 3, li, N. 3.

Miscellaneous

The procedure of X-ray treatment of affections of the urinary organs. **M. LINDENBERG**. *Bld. d. physikal.-med. Techn.* *Berl.* 9 3, 1.

Clinical and serological investigations in pyuria due to bacterium coli. **COHEN** and **REUTER**. *Berl. Klin. Wchnsch.* 9 3, 1, 44.

Lapso of the perineum. **V. S. VIOZZI**. *Riv. esp.* 19 3, ix, 245.

A case of granuloma venereum and its cause. **MARTIN**. *Arch. f. Schiffs- u. Tropen-Hg.* 9 3, xvii, 60.

The technique of collargol X-ray photography. **CARL SCHNEIDER**. *Fortschr. d. Geb. d. Röntgenstr.*, 193, ix, 50.

A case of pseudoberythroidism. **F. R. OLIVER**. *J. Am. M. Ass.* 9 3, ix, 85.

The only way to know gonorrhea is cured. **H. A. MOORE**. *Indianapolis M. J.* 9 3, xvi, 99.

SURGERY OF THE EYE AND EAR

Eye

A study of the orbit and other cavities. **BORDAS**. *Rev. de chir. med. de Barcelone*, 9 3, xxxv, No.

Disturbances of vision in affections of the cerebellum. **OTTO MAA**. *Neurol. Zentralbl.* 9 3, xxxii, 405.

Ocular injuries. **C. B. W. LEE**. *J. Tenn. St. M. Ass.*, 9 3, 45.

Two rare cases of injury to the eyes — subconjunctival laceration of the lens and a supraciliary laceration of both eyes. **A. LEONARD**. *Schweiz. Anzeig.* 9 3, 2, 7.

The removal of foreign bodies from the cornea and conjunctiva. **C. H. MIA**. *Med. Press & Circ.* 9 3, cxv, 130.

Demonstration of the presence of any localization of heavy foreign bodies in the eye by X-rays. **MARTIN**. *H. v. v. Zschr. f. Augenheilk.* 9 3, xxxi, 3.

Chemical and experimental researches on intra-ocular drainage, preliminary report. **M. J. SCHWENK**. *Arch. Ophthalm.* 9 3, xlii, 7.

Scleral decompression in the treatment of intra-ocular tension. **J. M. RA. K. M. J. 9 3, xli, 140. [100]**

The effect of chronic glaucoma on the central retinal vessels. **G. H. VAN HANDEL**. *Arch. Ophthalm.* 9 3, xlii, 45. [100]

The management of acute hemorrhagic glaucoma, with advanced antero-capsular. **F. G. RICHMOND**. *J. Ophthalm. Otol. & Laryngol.* 9 3, xix, 90. [101]

The surgical treatment of glaucoma. With special reference to the substitutes for iridectomy. **E. O. SMITH**. *J. Ophthalm. Otol. & Laryngol.* 9 3, xix, 95. [101]

The trypsin operation for glaucoma, with exhibition of patients. **W. R. PARKER**. *Phys. & Surg.* 9 3, xxv, 3. [101]

Some points in the history and pathology of trachoma and new treatment for chronic trachoma. **G. J. JONAS**. *Trans. Am. M. J.* 9 3, viii, 74. [101]

Infectious suppurative keratitis. **E. A. L. MORAN**. *Ophthalm. Rec.* 9 3, xxi, 7. [102]

A case of hydatid cyst of the orbit. **KARL VON KERN**. *Med. J.* 9 3, xii, N. 5.

Fibro-sarcoma of the orbit. **O. SEIBER**. *Am. Med.* 9 3, xiv, 9.

A cyst of the conjunctiva. **O. H. SMITH**. *Mass. M. J.* 9 3, 3, 94.

Report of a case of conical cornea successfully treated by the actual cautery. **W. C. POSEY**. *Arch. Ophthalm.* 9 3, xlii, 145. [102]

Dystrophic epithelioma cornea. **R. G. REESE**. *Ophthalm. Rec.* 9 3, xxi, 3. [102]

The operation for senile cataract. **J. E. JENKINS**. *J. M. S. M. Ass.* 9 3, ix, 503.

A case of eversion of the pigment layer of the iris. **R. HALL**. *Arch. Ophthalm.* 9 3, xlii, 70.

The employment of Baci paste for facilitating the extirpation of the lachrymal sac. **A. L. V. POBLETE**. *Brussels*, 9 3, xxi, No. 4.

Traumatic enophthalmos. **A. DETROIT**. *Col. Bl. f. sch. ex. Anzeig.* 9 3, xlii, 308.

The rods as color perceptive organs. **A. O. SMITH**. *Arch. Ophthalm.* 9 3, xlii, 50.

Case showing the result of peritomy. **ANDREW CURT**. *Proc. Roy. Soc. Med.* 9 3, vi, 4.

Metastatic purulent ophthalmia (radophthalmia septica). **F. W. A. VON**. *Ohio St. M. J.* 9 3, ix, 3. [103]

The optic disks in purulent otitis disease and its complications. E. G. CRIVIN. Arch. Ophth. 9 3, 251, 55. [103]

Retro-ocular abscess—has originated in the maxillary sinus. LASAVAL. Arch. Internat. de laryngol. d'otol. et de rhinol. Par. 9 3, xxxv No. 2.

Concomitant opthalmia treated with gonococcus cures. W. K. MERRIMAN. Med. Rec. 9 3, 1671 438.

The depth of the eye in otitis intermedia complications. FARRIS. Arch. Internat. de laryngol. d'otol. et de rhinol. Par. 9 3, xxxv No.

The needs of the eye, ear, nose and throat surgeon in general hospitals. T. W. ALLPORT. J. Trans. St. M. Ass. 9 3, 4, 437.

Ear

Improvement in the hearing of patients who have undergone radical cure by the insertion of an artificial tympanum. SUTTON. Brit. Anat. Physiol. Pathol. Therap. d. Othrs. d. Nas. d. Habes. 9 3, 1 No. 3.

Sporadic congenital deafness from syphilis. J. K. LOVE. Glasgow M. J. 9 3, 1678, 7.

Deep peri-auricular epithelioma. A. MORELLE. Ann. de l'inst. chir. de Bruxelles. 9 3, xx, 74.

Tuberculosis of the ear. OSTERL. Ztschr. f. arztl. Fortbild. 9 3, 67.

Plastic operation for congenital malformation of the auditory organ. KOSOWSKI. Arch. Othrh. 9 3, xc, N. 3.

Suppurative otitis media. J. R. W. SCOTT. Louisville M. J. 9 3, xxx 300.

Acute suppurative otitis media. W. T. MCCURR. J. Ark. M. Soc. 9 3, xi, 20.

Suppuration of the middle ear and amyloid degeneration. GROSSMANN. Brit. J. Anat. Physiol. Pathol. Therap. d. Othrs. d. Nas. d. Habes. 9 3, 1, N. 3.

Suggestions to the general practitioner concerning the subject of acute middle ear suppuration. C. W. MACKENZIE. Habes. Mouth. 9 3, xlii, 75.

The favorable effects exerted upon nervous conditions

by the cure of chronic suppurative inflammation of the middle ear. With some otho-therapeutic remarks. ESTEL. MIRA. Wien. med. Wchnschr. 9 3, lxxv, No. 3.

Chronic purulent otitis media, abscess of the temporoparietal lobe and of the cerebellar hemisphere: thrombophlebitis of the left lateral sinus; purulent cerebro-spinal meningitis. EGERT. Rev. osp. Roma. 9 3, li, No. 5.

Some practical points in the diagnosis and treatment of acute and chronic ear suppuration and their sequelae. JAS. F. MCKENNON. Buffalo M. J. 9 3, lxxv, 452.

A suppurative abscess and ichthyoid in external otitis. R. M. NELSON. J. Am. M. Ass. 9 3, li, 74. [104]

Primary cut mastoiditis. DR. SAA. Arch. Inter. nat. de laryngol. d'otol. et de rhinol. Par. 9 3, xxxv N.

Serous cysts of the mastoid process. C. BRYAN. Ann. de la soc. med.-chir. de Liège. 9 3, li, 7.

A contribution to the infant temporal bone in its relation to the mastoid operation. H. B. BROWN. Bull. Lying-In Hosp. N. Y. 9 3, li, 14. [104]

Tibial bone transplantation in the post-operative mastoid ovoid. M. J. BALLY. Med. Rec. 9 3, lxxviii, 372. [104]

Lesions of the labyrinth in tumors of the cerebellum and the ponto-cerebellar angle. LANGE. Arch. f. Othrh. 9 3, xc, No. 3.

Progress in prophylaxis, diagnosis, and treatment of affections of the labyrinth. MÜLLER. Klin.-therap. Wchnschr. 9 3, xi No.

Chronic manifestations of suppuration of the labyrinth of the ear. W. URRANDORF. Wchnschr. Koblitz. 9 3, 1.

Ligation of the jugular vein in otogenous pyramus. M. ROSENBERG. Monatsschr. f. Othrh. Hals- u. Nasenkrankh. 9 3, viii, 33.

Generalized septic affections of otic origin: the disease picture of pyemia. ELLA WOLF. Ztschr. f. Othrh. f. d. Krankh. d. Lohwage. 9 3, lxxvii, 80.

Otic meningitis. W. M. MILLERSON. G. y' Hosp. Gaz. 9 3, xxxv, 20.

Cavernous sinus thrombosis. His report of two cases. ADAM DIGHTON. Practitioner Lond. 9 3, xc, 56.

SURGERY OF THE NOSE, THROAT AND MOUTH

Ear, nose, and throat in general practice. HIGGS P. CORROVERS. Practitioner Lond. 9 3, xc, 570.

Unguis albus, their surgical correction without external scars. BOURGAT. Toulouse med. 9 3, xc, No. 4.

A rare case of rhinolith. W. M. LEVY. Arzte Zig. 9 3, xx, 345.

Lentiginosus (oriental sore) of the nasal mucosa. L. B. HARRIS. J. Am. M. Ass. 9 3, li, 663.

Lesions of the nasal mucosa membrane. WALS. Deutsche med. Wchnschr. 9 3, xxxv, No. 6.

New supply of inferior orbital as shown by vital staining. T. W. E. ROSS. J. Laryngol. Rhinol. & Otol. 9 3, lxxvii, 57. [104]

Deviated nasal septum—its influence on the general health surgical treatment. A. C. MAJORANA. Colo. Med. 9 3, x, 82.

Foreign bodies in the nasopharynx. CH. Arch. Internat. de laryngol. d'otol. et de rhinol. Par. 9 3, xxxv No.

Diffuse spongy hyperostosis of the nasal skeleton.

JACQUES. Rev. hebdom. de laryngol. d'otol. et de rhinol. Bordeaux. 9 3, xxxv N. 2.

Outcome of the ethmoid bone operated by the procedure of MONT. LACA and BONZON. Rev. hebdom. de laryngol. d'otol. et de rhinol. Bordeaux. 9 3, xxxv No. 0.

An efficient and easily removable nasal packing. F. FLETCHER. L'Occident. Rhinol. M. J. 9 3, xliii, 249. [104]

The diagnosis and conservative treatment of disease of the nasal sinuses. HAROLD H. A. Med. Rev. of Rev. 9 3, xiv, 50.

Five cases of frontal sinusitis. LABARRIÈRE. Arch. Inter. nat. de laryngol. d'otol. et de rhinol. Par. 9 3, xxxv No.

Disease of the nasal accessory cavities. SE. MOUTH. Ophth. Med. 9 3, li, 9 3, xlvii, 537.

Relation of accessory sinus diseases to that of the eye. WILSON. N. York. Clinique. 9 3, xlvii, 35.

Suppuration in the nasal sinuses. CHARLES W. M. HORN. Practitioner Lond. 9 3, xc, 547.

Diffuse osteomyelitis from nasal disease. D. M. KIRBY. J. Laryngol. Rhinol. & Otol. 9 3, lxxvii, No. 3.

- Treatment of suppurating affections of the accessory cavities of the nose. **MILNER.** St. Petersburg med. Zashch. 9 3, xxxviii, No. 4.
- The treatment of catarrhal inflammation of the accessory sinuses. **J. J. LA SALLE.** Ohio St. M. J. 9 3, lx, 5.
- A malignant tumor of the accessory cavities of the nasal fossa which had invaded the naso-pharynx. **SEIDMAN.** Med. kron. lek., Warszawa, 9 3, xlviii, No. 9 & 10.
- A case showing restoration of the entire nose by rhinoplasty and bone transplantation. **WM. H. CARTER.** J. Am. M. Ass. 9 3, lx, 732. [106]
- Rhinoplasty. **C. A. McWILLIAMS.** J. Am. M. Ass. 9 3, lx, 730. [106]
- Exhibition of specimens from a case of suppuration of the nostril due to aspergillus fumigatus, with short notes of the case. **D. HARRIS.** Proc. Roy. Soc. Med. 9 3, vi, 9. [107]
- Stone in the nostril of Hagmore. **N. B. CARMON.** Internat. M. J. 9 3, lx, 212.
- Minor surgery in oto-rhino-laryngology. **NORRICKAARD.** Ugesk. f. Læger. Kjøbenhavn, 9 3, lxxv, N. 3.
- Islands of cartilage and bone upon and in the tonsils. **G. OSWALD.** Arch. f. Otorrh. 9 3, xc, No. 3.
- Intra-cystic papillomatous lesions of the tonsil. **HADAL.** Rev. heb. de laryngol., d'otol. et de rhinol. Bordeaux, 9 3, xxxiv, No. 2.
- T. cases of tonsillectomy. **T. G. ORR.** J. Am. M. Ass. 9 3, lx, 742.
- A proposal respecting severe hemorrhages after tonsillectomy. **ARMANDO MALAS.** Gazz. d. osp. d. chir., Milano, 9 3, xxxiv, 3-1.
- A method of tonsillectomy by means of the alveolar emissaries of the mandible. new guinea and mare. **G. STUNDEL.** J. Am. M. Ass. 9 3, lx, 690.
- The treatment of adenoids and tonsils. **E. WARD.** Practitioner Lond., 9 3, xc, 357.
- Adenoids. **W. E. REIL.** J. Ophth., Otol. & Laryngol., 9 3, xix, 7. [107]
- Röntgenographic representation of changes in the form of the epipharynx. **M. L. LUND.** Monatschr. f. Otorrh. u. Laryngo-Rhinol. 9 3, xiv, 52.
- Three new cases of angina Ludovici. **REICHEL.** J. d. prakt. Med., Par. 9 3, xxviii, No. 2.
- Angina Ludovici. **JOE.** J. d. prakt. Med., Par. 9 3, xxviii, N.
- Direct endoscopic examination of the larynx, trachea, and bronchi, technique, indications, and results. **G. BRUNO.** These de doct., Montpellier 9 3.
- Decannulation and tracheotomy after tracheotomy and intubation respectively. **C. JACQUES.** T. Am. Laryngol. Ass., 9 3, May. [108]
- Congenital membranes of the larynx. **G. W. BADGER.** Proc. Roy. Soc. Med., 9 3, vi, 66. [109]
- Iodine treatment of tuberculous ulcerations in the larynx and fauces. **OSCHNACHT.** Monatschr. f. Otorrh. u. Laryngo-Rhinol., 9 3, xliii, 266.
- The treatment of laryngeal tuberculous. **ANDREW O. PRYOR.** Louisville M. J. 9 3, xlv, 266.
- Excision of the vocal cords in laryngeal stenosis. **ISAWORI.** Monatschr. f. Otorrh. Hals-u. Nasenh. 9 3, viii, 6.
- Direct laryngoscopy and autostatic ortholaryngoscopy. **LAROCHE.** Arch. internat. de laryngol., d'otol. et de rhinol. Par. 19 3, xxv, No. 2.
- Excision of larynx for malignant disease. **J. B. NASE.** Austral. M. Gaz. 19 3, xxxv, 1.
- Hemilaryngectomy by the lateral path. **RUTEN.** Rev. de Med. y Cir. pract., Madrid, 9 3, xxxvii, No. 57.
- Cleft palate operation results as demonstrated upon dogs' palates. **GEO. I. BROWN.** Lancet-Chin., 9 3, dx, 3, 6.
- Dental cyst in child of eleven years; extraction, recovery. **BRAC-TAVIN.** Gaz. heb. d. sc. mèd. de Bordeaux, 9 3, xxxiv, No. 2.
- Malignant disease of the tongue and mouth. **ROBERT ARZ.** Med. Rec. 9 3, lxxviii, 46. [109]
- Teeth growing in the nasal fossa. **E. H. GATNEY.** Med. Rec. 9 3, lxxviii, 389.
- Some dental aspects in rhinology. **J. H. GIBBS.** J. Laryngol. Rhinol. & Otol. 9 3, xxvii, No. 3.
- Anatomical changes in the lower jaw in case presenting several anomalies in the position of the teeth. **ROGGELOO.** Festschrift. Festschrift. Deutsche Monatschr. f. Zahnheilk., 1913, xlii, 53.
- A large foreign body in the mouth. **MILNER.** Can. M. J. 9 3, xl, 2.
- A case of multiple fibrosarcoma of the fauces. **OSWALD.** Arch. internat. de laryngol., d'otol. et de rhinol. Par. 9 3, xxxv, No. 2.
- Dermoids of the floor of the mouth, their development, diagnosis and treatment. **HARTEL.** Beitr. z. klin. Chir. 9 3, lxxviii, No. 2.
- Lapses of the tongue and of the larynx. **HENRI HANSEN.** Ztschr. f. Laryngol., Rhinol. u. L. Grenzgeb., 9 3, 240.
- Pilegomas of the tongue and their relation to the so-called angina Ludovici. **KUTVIER.** Can. M. J. 9 3, xl, 93 and 933.
- A clinical demonstration of cases of cancer of the tongue. **C. ROSENTHAL.** Clin. J. 9 3, x, 374.
- Cancer of the tongue as secondary condition in case of epidermolytic bullous. **KLAUWER.** Arch. f. Dermatol. u. Syphilis, 9 3, Orig. cxvii, 72.
- Cancer of the tongue in young subjects. **GOREN.** and **DUPONCH.** Rev. de chir. Par. 9 3, xlvii, 203. [109]
- Larynx and throat in general practice. **HUGH P. CORRY.** Practitioner Lond., 9 3, xc, 379.
- Ungually noses, surgical correction without external scars. **BOUQUET.** Toulouse mèd., 9 3, xv, 240.
- A rare case of rhinolith. **ISAWORI.** Anzeig-Ztg. 9 3, xii, 143.
- Leishmaniosis (oriental sore) of the nasal mucosa. **L. B. HATER.** J. Am. M. Ass. 9 3, xl, 864.
- Lapses of the nasal mucous membrane. **WALL.** Deutsche med. Wochenschr., 9 3, xxxix, No. 6.
- Nerve supply of inferior turbinate as shown by vital staining. **T. W. E. ROSE.** J. Laryngol. Rhinol. & Otol., 9 3, xxvii, 57.
- Deviated nasal septum—its influence on the general health surgical treatment. **A. C. MACDONALD.** Can. Med. 9 3, x, 82.
- Foreign bodies in the naso-pharynx. **CHAS. ARZ.** Arch. internat. de laryngol., d'otol. et de rhinol., Par., 9 3, xxxv, No. 2.
- Defuse massive hyperostosis of the nasal skeleton. **JACQUES.** Rev. heb. de laryngol. d'otol. et de rhinol. Bordeaux, 19 3, xxxiv, No. 2.
- Osteoma of the ethmoid bone operated by the procedure of Moore. **REYAT and DUBOIS.** Rev. heb. de laryngol. otol. et de rhinol. Bordeaux, 9 3, xxxiv, No. 2.
- An efficient and easily removable nasal packing. **E. FLETCHER.** Locals. Illinois M. J. 9 3, xxvi, 240.
- The diagnosis and conservative treatment of diseases of the nasal sinuses. **HAROLD RAY.** Med. Rev. of Rev. 9 3, xix, 56.
- Five cases of frontal sinusitis. **LAMARSH.** Arch. internat. de laryngol., d'otol. et de rhinol., Par. 19 3, xxxv, No. 2.
- Diseases of the nasal accessory cavities. **SCHNEIDER.** Oppenheimers. N. Y. M. J. 9 3, xxvii, 537.
- Relation of accessory sinuses diseases to that of the eye. **WILSON N. LOR.** Clinique, 9 3, xxvii, 35.

AUGUST 1913

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH

Journal de Chirurgie, Paris

Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete, Berlin

Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete, Berlin

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER Berlin

B. G. A. MOYNIHAN Leeds

PAUL LECÈNE, Paris

EUGENE S. TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J. DUMONT Paris

EUGENE JOSEPH, Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wyllis Andrews Willard Bartlett Frederick A. Bostley Arthur Dean Bevan J. F. Manile Georg E. Brewer W. B. Brinkmade John Young Brown David Cheever H. R. Chislet Robert C. Coffey F. Gregory Connell Frederic J. Cotton George W. Crile W. R. Cubbins Harvey Cushing J. Chalmers DeCosta Charles Davidson D. N. Elsendorff J. M. T. Finney Jacob Frank Charles H. Frazer Emanuel Friend Wan. Fuller John H. Gibson D. W. Graham W. W. Grant A. E. Halstead M. L. Harris A. P. Helmeck William Hensert Thomas W. Huntington Jabez N. Jackson E. S. Judd C. E. Kahleke Arthur A. Law Robert G. Le Conte Dean D. Lewis Archibald McLaren Edward Martin Rudolph Matas Charles H. Mayo William J. Mayo John R. McDill

(Editorial Staff continued on page viii, i and ii)

Editorial communications should be sent to Franklin H. Martin Editor 31 N. State Street, Chicago

Editorial and Business Offices: 31 N. State Street, Chicago Illinois, U. S. A.

Publishers for Great Britain: Baillière Tindall & Cox 8 H. Grafton St. Covent Garden London

23

TABLE OF CONTENTS

I	INDEX OF ABSTRACTS OF CURRENT LITERATURE	i
II	AUTHORS	vii
III	ABSTRACTS OF CURRENT LITERATURE	133-240
IV	BIBLIOGRAPHY OF SURGICAL LITERATURE	241-264

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

Anesthetics

- GUTH, GARR AND MANN The Danger and Prevention of Severe Cardiac Strain During Anesthesia
SPRINGFIELD The Choice of an Anesthetic in Operations for Acute Inflammatory Conditions of the Abdomen

- BADENRIDGE Spinal Anesthesia: Development and Present Status of the Method, with Brief Summary of Personal Experience in 605 Cases

SURGERY OF THE HEAD AND NECK

Head

- BASMAN Temporomandibular Ankylosis
FREELSON A Preliminary Report on the Temporal Bone and Its Anomalies at Birth in One Hundred and Fifty Cases
BARRETT Diffuse Glioma of the Pia Mater
HITCHCOCK Consecutive Displacement of the Cerebral Hemisphere in the Localization and Removal of Intracerebral Tumors and Hemorrhages
DIXON Bilateral Cerebral Abscess Involving the Motor Areas
ROSENBAUM Report of Cases Illustrating Certain Phases of Cerebro-Spinal Surgery
SWIFT AND ALLEN The Effect of the Removal of the Hypophysis in the Dog
MEYER New Formation of Nerve Cells in Isolated Part of Nervous Portion of an Hypophyseal Tumor in Case of Acromegaly with Diabetes, with Discussion of Hypophyseal Tumors Found So Far

Neck

- SOBYCHENKO Tumors of the Carotid Gland
SWOOLER Ligation of the Common Carotid
HAGGERTON The Influence of Insufficiency and Atrophy of the Thyroid Gland on Diseases of the Joints
KUTSCHER Against the Water Etiology of Gout and Grits

SURGERY OF THE CHEST

Chest Wall and Breast

- THOMAS A Study of Empyema, with Special Reference to the Feasibility and Importance of Dependent Drainage

- LAWSON The Surgical Treatment of Pleural Empyema, with Special Reference to After Treatment by Aspiration

Trachea and Lungs

- MATTHEW Surgical Treatment of Pulmonary Empyema

Heart and Vascular System

- D. VERMONT Two Cases of Penetrating Wound of the Heart

Pharynx and Esophagus

- MORRISON Congenital Stricture of the Lower End of the Esophagus, Case Treated by Gastrostomy Followed by Dilatation of the Stricture Through the Esophagoscope
BAMLER Early Diagnosis of Cancer of the Esophagus
VAN FIVE The Plastic Repair of the Esophagus

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

- GRANT Ligamentous Phlegmon of the Abdominal Wall
HOWELL The Operative Treatment of Tuberculosis of the Peritoneum
BAGSHAW Subphrenic Abscess
CARLISL Herniology of Inguinal Hernia
JUDS A Single Transverse Incision for Use in Double Inguinal Herniotomies
BAKKER The Treatment of Large Hernia
STUDER Function of the Great Omentum
SEARSON Diverticulitis
NEWMAN The Urachus as a Factor in Intestinal Obstruction, with Report of Case

Gastro-Intestinal Tract

- GUNTER A Picture of Diverticulosis of the Stomach without Corresponding Loss of Any of the Stomach Wall
SILVER Colloidal Ulcer Involving the Entire Stomach, Excised, with Comments on Complete Loss of Stomach and the Technique of Stomach Resection
KOUS Our Permanent Results Obtained with Ligation of the Pylorus with Omentum and Fascia
KUTSCHER Duodenal Ulcer
ELSON Duodenal Motility
ROWLANDS Jejunal and Gastro-jejunal Ulcers
LAMP Progress in the Diagnosis and Treatment of Intussusception

GREEN KILLDOG AND HARVEY Spastic Paralytic Ileus
HARRIS Report of Case of Fecal Impaction in the Neonate for Fifty-three Days, with Recovery
PATER A Case of Primary Sarcoma of the Small Intestine
HARRIS Vegetative Adhesions of the Superior Portion of the Small Intestine Simulating Pyloric Stenosis
MURPHY Contraction of Intestinal Anastomotic Opening with Extensive Abdominal Adhesions Cerebral Palsia
CONNELL Etiology of Lane's Knot, Jackson Membranes and Cecum Mobile
EASTMAN The Fetal Peritoneal Folds of Jönsson, Treves, and Reid, and Their Probable Relationship to Jackson's Membrane and Lane's Knot
RICHENBACH Appendicitis ex Oxyure
JACKSON Retrocecal Appendicitis
FITCHER Prolapse of the Rectum
SEIDLER Fluoroscopy of the Gastro-Intestinal Canal
BOYD Non parasitic Cyst of the Liver
DELBERT Angioma of the Anterior Surface of the Liver Removed After Hepatic Resection Cure
BURY Gall-stone Disease Medical Treatment
KATZ A Review of 1000 Operations on the Bile Passages
SILVER Anatomical Relations of the Cystic Duct and Duodenum
REINER Acute Peritonitis Cholecystitis Complicated by General Peritonitis
GROSS AND DEWILLYST Cholecystectomy from Right to Front
DELBERT A Peripneumonic Cyst Between the Leaves of the Transverse Mesocolon
WATSON Aberrant Pancreas in the Splenic Capsule
MORAN Transperitoneal Cholecystocholothotomy Clinical and Anatomical Study
Miscellaneous
HINTON Colostomy in Infancy and Early Childhood

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons. General Conditions commonly found in the Extremities	
PILLI	Re-formation of Bone After Resection
DIMARSH	The Etiology of Rickets and Calcium Metabolism
FRANK	The Diagnostic Significance of the Leucocyte Count in Osteomyelitis and Tuberculosis of the Bones in Childhood
LUXLEY	Hypertrophic Chronic Osteitis without Abscess or Necrosis
WHEELER	Three Cases of Tuberculous Disease of the Lower End of the Femur Illustrating some Points in Pathology and Treatment
LESLIE	Surgical Treatment of Tuberculosis
KOHN	Treatment of Bone and Joint Tuberculosis
GARRICK	Treatment of Bone and Joint Tuberculosis
SCHMIDT	X Ray Treatment of Bone and Joint Tuberculosis

MINNELL The Treatment of Limb Scarcities	166
ET Disease of Joints and Bone Marrow	166
RICE Considerations Regarding the Pathology and Treatment of Some Common Joint Diseases	67
ROSEWORTH The Etiology of Articular and Muscular Rheumatism	67
LEXNER Rheumatoid Arthritis in Children	168
ET Joint Tuberculosis	168
POWELL The Treatment of Tuberculous Joints	169
HUOY AND ROSE Infections of the Hand	69
LEWIS, HUNTINGDON, WALKER, MARTIN AND ROBERTS Fractures Preliminary Report of Committee	70
MILLER Primary Traumatic Dorsal Complete Radiocarpal Dislocation	171
Surgery of the Bones, Joints, Etc.	
MCGILLAN An Open Treatment of Fracture of the Femur	7
FRATTY A New Application of Free Osteoplastic Operation in Flaccid Paralytic Foot	73
SCHULTZ The Treatment of Fracture of the Patella New Method of Repairing the Extensor Muscles	7
VON WIESS-JOWNSON Operation and Open Method of Treatment in Purulent Focal Tuberculosis of the Joint	73
TONE The End Result of Excision of the Elbow for Tuberculosis	73
KOHN Clinical and Experimental Observations on Ivory Implantations	73
RÖHRER Transplantation of Fat in Joint Surgery	74
LEXNER Retransplantation of Joint bones Arthroplasty	74
ALLISON The Results Obtained by Implantation of Silk Tendons in the Residual Paralysis of Polio-myelitis	74
ALEX VONER Treatment of Volkmann Contracture	75
STAWFORD Technique of the Movable Stamp in Amputations	75
JACKSON Amputation Flaps	75

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine	
MURRAY. Impacted Fracture of the Body of the First Lumbar Vertebra. Laminectomy: Rapid Recovery Following Decompression of the Cord	70
HATCH. The Use of Corrective Plaster Jackets in the Treatment of Scoliosis	70
ALLEN. An Experimental Study of Bone Growth and the Spinal Bone Transplant	74
Malformations and Deformities	
EVERSHED. The Correction of Congenital Equino-varus: Report of Thirty-six Cases	77
SEVER. Cava Vert. Some Observations on this Condition. With Special Reference to the Question of Spontaneous Recovery from the Deformity	77

DISEASES AND SURGERY OF THE SKIN
FACIA AND APPENDAGES

CURTAIN Contribution to the Study of Free Transplantation of Tissue in the Human Organism 77

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, Etc.
HOFFMAN The Menace of Cancer 78

WALKER AND WINTERBORN The Effect of General
Constriction of the Peripheral Blood-vessels upon
Mucous Cancers 78

ROOS False Transitions Between Normal and Can-
cerous Epithelium 79

TYLER A Transplantable New Growth of the Fowl
Producing Cartilage and Bone 79

D VIA The Transplantation of Rib Cartilage into
Pediculated Skin Flaps 79

Sera, Vaccines, and Ferments

KOCHER Further Observations on the Treatment of
Tetanus with Magnesium Sulphate 80

McCORM The Employment of Protective Enzymes
of the Blood as Means of Extracorporeal
Diagnosis 80

VON RUCK The Relative Value of Living or Dead
Tubercle Bacilli and of Their Endotoxins in
Solution in Active Immunization Against Tubercu-
losis 81

Blood

EPSTEIN Further Studies on the Chemistry of
Blood Serum 81

ANDERHALDEN The Detection of Foreign Sub-
stances in the Blood by Dialysis and Optical
Methods and the Use of Such Methods and
the Principles Underlying Them in Path-
ology 81

SCHLOSSMANN What is the Practical Surgical Value of
Determining the Coagulability of the Blood 81

DROGO Coagulation of the Blood and Its Value in
Obstetrics and Gynecology 83

Blood and Lymph Vessels

PREMMER The Value of Skiagraphy in the Diagnosis
of Aneurism of the Abdominal Aorta, Presenta-
tion of Case and Descriptive X-ray Plates 83

KEY Operation for Embolism of the Femoral Ar-
tery 83

OPPEL Wiering's Operation and the Impeded Cir-
culation 84

Surgery Therapeutics

WEINER AND VON ZURBETTEN The Influence of
Colloidal Silver on the Opsonic Index 84

Electrology

GADDEL Four Years of Experiments with Röntgen
Rays Apparatus with an Interrupter (rectifier)
and Certain Important Modifications of the
Apparatus 84

CASE Treatment of Malignant Tumors with Radio-
active Substances 85

FRETCHENHALL Radium as an Aid in the Treatment
of Malignant Neoplasms 85

ANDREWS KADYU AND G. VAN The Influence on
Deep-seated Carcinoma of X and Radium
Rays 86

STEWART Notes from the X-ray Department of St.
Bartholomew's Hospital 86

GYNECOLOGY

Uterus

CASE Chrono-epithelioma Recurrence Three Years
After Invasion of the Spinal Canal With its
Secondary Growth 87

AMEL Electrical Coagulation in the Surgical Treat-
ment of Cancer Especially of Uterine Cancer 87

McDONALD The Treatment of Broad Tumors, with
Report of Two Cases 88

SCHULTZ AND SE Red Degeneration of Uterus
Fibromyomata 89

VON DER HOEVEN Mammia in Uterine Hemorrhages
PARAGORRY Clinical Observations About the Action
of Hemostatics in Uterine Hemorrhages 89

REICH The Therapy of Marked Menorrhagia 89

CARSTEN Dysmenorrhoea 89

TRINITY Polypus Complicating Inversion of the
Uterus and Illustrating the Difficulty of Diag-
nosis 89

FRANK Contra-indications to Correcting
WELCH The Undeveloped Anteverted Uterus and
the Sterile Woman 90

CHADE The Relaxation of the Cervix in the Surgical
Treatment of Anteversion of the Uterus 90

GEFFERT A Discussion on Ventrifixation, Its Indica-
tions, with an Analysis of 77 Cases 90

GRUB The After-results of Operations for Uterine
Displacements 91

BROOKS The Technique of Ventral Fixation of the
Uterus and Allied Operations 91

LEONARD Post-Operative Results of Amputation of
the Cervix 91

DEAHER A Year's Work in Hysterectomy 92

OSTROM A Cradle Suture for Holding the Uterus in
Ventrifixation 93

FOURMONT Clinical Demonstration of an Opera-
tion for Prolapsed Uteri Complicated by Hyper-
trophy of the Cervix 93

Adnexal and Peritestic Conditions

GRAVES Influence of the Ovary as an Organ of
Internal Secretion 93

LAUREN Sarcoma of the Broad Ligament with
Metastases and Uterine Fibromyoma 93

McDONALD Some Old Pelvic Inflammatory
Diseases Their Non-Surgical Treatment with
Report of Cases 94

External Genitalia

BANDLER Vaginal Surgery 94

ROSS Examination of the Pelvic Organs in Doubtful
Cases Through Vaginal Incision 94

FRIEDMAN Gonorrheal Vaginitis Treated by
Vaccine 94

LOTHMAN An Operation for the Cure of Vaginal
Hemata 95

BUTCHER Large Urinary Carcinoma in Girl of 9 Years, A Preliminary Note with Summary of the Subject	95	ALPERTX Reflex Pains on Pressure of Cerebral Plexus in Inflammations of Female Genitals	97
Miscellaneous		DUBAILLOUX Enlargement of the Liver During Menstruation	97
KINDIGER The Etiology of Gynostreles	95	HODGKINS Thymol in Gynecologic Treatment	9
BELL Genital Functions of the Ductless Glands in the Female	96	HEDMANN X Ray Treatment in Gynecology	97
SMITH The Prognostic Value of the Leucocyte Count in Pelvic Suppurative Conditions	97	THEILACKER The Influence of the Social Factor Upon the Origin of Tumors	124

OBSTETRICS

Pregnancy and Its Complications		HARRISON Intracranial Abscess of the Puerperal Uterus	304
ENGLEBOM Biologic Diagnosis of Pregnancy	99	Miscellaneous	
VAN TUBBERBROEK Influence of Pregnancy on Death Rate of Tuberculosis in the Netherlands	99	WILCOX Head Injuries of the New Born	304
SAMPSON The Influence of Ectopic Pregnancy on the Blood Supply of the Uterus, with Special Reference to Uterine Bleeding Based on the Study of 5 Infected Uteri Associated with Ectopic Pregnancy	99	SCHNEPPMAN AND VITTELAVEL The Internal Secretion of the Mammary Gland	304
ANDREWS Ectopic Pregnancy Occurring Twice in the Same Patient	300	EDMER Bacteremia in Abortions and Its Clinical and Theoretical Significance	304
CHIEBER A Case of Reported Very Early Primary Ovarian Pregnancy	30	CONNETT The Excretion of Amyolytic Ferments in the Urine During the Toxemia of Pregnancy	305
SPREDEL Eclampsia 11th Report of Three Very Unusual Cases	30	WILLIAMS AND PEARCE Abderhalden Biological Test of Pregnancy	305
NUTTALL Cases of Atypical Eclampsia	30	VAN EERS Hemostases in Obstetrics by Means of Modification of Moseberg's Method	305
BRUCE BAYE Psychoneurosis of Pregnancy	30	STENCKHOFF Deaths Occurring After Moseberg's Hemostases and After Lumbar Anesthesia	306
JACOBI Pulmonary Tuberculosis of the Pregnant Woman	303	MCDONALD Sterility in the Female; Its Etiology and Treatment; with Report of Case	306
KORNIC The Influence of Pregnancy Labor and Puerperium on Tuberculosis	30	HAUCH AND MITCHEL Pituitin as an Aid to Expulsion	307
Labor and Its Complications		KRUEGER Hyocine Morphine and Pituitin in Parturition	307
KRUG A New Manipulation During Labor	30	ERLICH Treatment of Urinary Retention with Pituitin	307
WHITE The Contraction Ring as Cause of Dystocia, with Description of Specimen Removed by Hysterectomy During Labor	303	DAIELS The Clinical Action of Electropul	307
VOGT A Hematoma of the Abdominal Wall Developing During Labor	303	VON BOLLSTEDTER Pentapren	308
Puerperium and Its Complications		RACHON Voss Method of Non-Ligation of the Umbilical Cord	308
GIBSON Etiology and Treatment of Puerperal Eclampsia	303	LEVYEN On the Action of Hypophyseal Extract	308
MCDONALD Puerperal Infection from the Gonococcus	303	AULISCH Demonstration of Fortes with Solid Embryoma of Cecum	308
		MCDONALD A New Obstetrical Forceps	308

GENITO-URINARY SURGERY

Kidney and Ureter		ESCHERICH Tuberculosis of the Kidney	
OKLMACHER The Bacteriology and Bacteriotherapy of Renal Calculi and Its Sequels	309	ALGER Common Ocular Changes in Nephritis	
LOWE Conservative Surgical Method in Operating for Stone in the Kidney	309	UNDERHILL Intermittent Pyrexia Due to Infection of the Prostatic Utricle	
ESCHERICH Pyelotomy for the Removal of Renal Calculi	309	CAULIE Unilateral Renal Hematuria Cured by Pelvic Excision of Adrenals	
WILSON The Embryogenetic Relationship of Tumors of the Kidney Suprarenal, and Testicle	30	POPOV The Future of the Nephrectomized Nephrectomy	3
JOLT Three Unusual Cases of Renal Tumor with Discussion of the Operative Treatment of the Condition	31	MIMOT The Technique and Results of Lateral Nephrectomy	4
		KELLOCK Ligation of the Renal Artery and Vein as Substitute for Nephrectomy	14
		GETTERAS Some Aspects of Renal Surgery	3

- LEWIS** I Decapsulation of the Kidneys for Chronic Bright Disease Justifiable? 5
- BARNETT** A Method of Classification, Diagnosis and Therapy of Kidney Disorders, Based on Functional Testing 5
- BRAMBLE** Recent Progress in Ureteropyelography 5
- PROCTOR AND BUCKNER** Technique of Circular Ureterorrhaphy 216
- BONA** Ureteral Catheter Diagnosis and Therapy 8
- Bladder, Ureters, and Penis**
- BURROGHES** The Pathology and Treatment of Callosus Ulcer of the Bladder 9
- NEWMAN** Chronic Cystitis and Retention of Urine; Treatment by Drainage and Its Beneficial Effect Upon Damaged Kidneys 20
- CUMSTON** Suprapubic Cystostomy 20
- GOSSET** A Case of Ectropion of the Bladder Treated by the Operation of Hault-Boyer Hovelacque 20
- CUMSTON** Excision and Suture in the Treatment of Dense Close Urethral Strictures 20
- Prostator** Urethral and Perurethral Lithiasis 5
- Genital Organs**
- CUTLER** Epididymotomy—A Plea for Rational Treatment of Epididymitis 2
- ARMSTRONG** Prostatectomy—Suspension of the Bladder 5
- ROCKY** Prostatectomy by Composite Method 216
- WHEELARD** Pre and Post-Operative Treatment of Prostatectomy 216
- KOLLSBERG** The After Treatment of Suprapubic Prostatectomy 213
- FRISVOLD** A Series of 36 Cases of Total Enucleation of the Prostate Performed During the Two Years 1911-12 213
- CABOT** The Operative Treatment of Prostatic Hypertrophy 21
- Miscellaneous**
- PERCHERON** The Colon Bacillus in Genito-Urinary Diseases 5
- PORTER** Uric Acid Calculi 5
- WALKER** Recent Work in Genito-Urinary Surgery 5

SURGERY OF THE EYE AND EAR

- Eye**
- McKINLEY** Cystic Distention of the Lachrymal Sac Operation on the Nasal Duct in the Nose (West Operation) 7
- WRIGHT** The Excision of the Lachrymal Sac 227
- KRATON** Report of Case of Congenital Ptosis in Both Eyes Relieved by the Metals Operation 7
- TROY** A Case of Congenital Apron of the Palpebral Conjunctiva 227
- CLARK** Radium Treatment in Tumor of the Orbit 218
- DR. SCHWENKEL AND SIEGEL** Epibulbar Carcinoma Histological Examination of the Specimen 218
- STALLWORTH** Corneal Ulceration 218
- CHANCE** Degeneration of the Cornices of Man and Adult Son 20
- HARRISON** Two Cases of Corneal Cornices with Cataract 20
- SUMNER** Control of the Eye in Cataract Operations 20
- REEDER** A Method of Dealing with the Capsule After Cataract Operations 20
- MILLICENT** The Intracapsular Cataract Operation from the Viewpoint of an Assistant 20
- GREENWOOD** Sarcoma of the Choroid, not Demonstrable by the Ordinary Transillumination 20
- HARRISON** Two Cases of Chronic Glaucoma Simplex Treated by Iridotomies 230
- WINKER** Orbital Cellulitis Fatal Case Following Disease of the Accessory Sinuses of the Nose 230
- FRISVOLD** Traumatic Posterior Leptocornea 3
- Ear**
- PITTSBORO** Case of Epithelioma of the Auricle and Cervical Glands Removal of Auricle and Glands 3
- BRYANT** The Protective Mastoid Operation 3
- BLACKWELL** Exposure and Carettement of the Altric Combined with Modified Blood Clot as Factors in Promoting Rapid Mastoid Healing 23
- RANDALL** A Small Trephined for Mastoid Caries and Lateral Sinus Thrombosis 23
- SHAMBERG** When to Operate on the Labyrinth in Labyrinth Infection Secondary to Purulent Otitis Media 23
- DAY** Indications for and Results of Operative Treatment of Otitic Meningitis 24
- DIERCK** Report of Three Cases of Otitic Meningitis, Treated by Drainage of the Cerebra Magna 24

SURGERY OF THE NOSE, THROAT AND MOUTH

- SLEETER** Further Observations on Some Anatomical and Clinical Relations of the Sphenoidal Sinus to the Cavernous Sinus and the Third, Fourth, Fifth, Sixth, and Vidian Nerves 35
- RANDALL** Skull with Malformation of the Temporal Bone and Distortion and Absorption of the Basilar Region as if by Pressure of Naso-Pharyngeal Growth 35
- REIK** The Value of Naso-Pharyngeal Surgery in the Treatment of Chronic Exudative Otitis Media 35
- SHAMBERG** The Facial Tonsils as Focus for Systemic Infection 36
- CLARK** The Results in Series of Cases of Tonsillotomy Three to Four Years After Operation 36

O'MALLEY Excision of Tonsils and Removal of Adenoids Under Gas Anesthesia

37 BURROWS Direct Endoscopic Examination of the Larynx, Trachea, and Bronchi Technique Indications and Results

DOVILAN Adhesions of Uvula and Soft Palate to Posterior Pharyngeal Wall in Gird Aged

37 SAKSISOV Tuberculosis of the Larynx

GROVE Certain Dangers of the Adenoid Operation

37 R. ALL. Cancer of the Tongue

37 SURVEY Misplaced Mandibular Canine

37 OCHSNER Cleft Palate

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNOLOGY

Operative Surgery and Technique

Aseptic and Antiseptic Surgery

Anesthetics

Surgical Instruments and Apparatus

241

24

24

242

SURGERY OF THE HEAD AND NECK

Head

Neck

24

43

SURGERY OF THE CHEST

Chest Wall and Breast

Trachea and Lungs

Heart and Vascular System

Pharynx and Esophagus

244

244

244

244

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Gastro-Intestinal Tract

Liver, Pancreas and Spleen

Miscellaneous

245

246

247

247

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons

General Conditions commonly found in the Extremities

Fractures and Dislocations

Surgery of the Bones, Joints, Etc.

249

50

50

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

Malformations and Deformities

5

5

SURGERY OF THE NERVOUS SYSTEM

5

DISEASES AND SURGERY OF THE REPRODUCTIVE ORGANS

5

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, Etc.

Sens, Vaccines, and Ferments

Blood

Blood and Lymph Vessels

Poisons

Surgical Therapeutics

Surgical Anatomy

Electrology

Military and Naval Surgery

Surgical Diagnosis

GYNECOLOGY

Uterus

Adnexal and Peritoneal Conditions

External Genitalia

Miscellaneous

OBSTETRICS

Pregnancy and Its Complications

Labor and Its Complications

Puerperium and Its Complications

Miscellaneous

GENITO-URINARY SURGERY

Kidney and Ureter

Bladder, Urethra and Penis

Genital Organs

Miscellaneous

SURGERY OF THE EYE AND EAR

Eye

Ear

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

- Abderhakken 8
 Abel 8
 Albee 70
 Alexander 5
 Alex 5
 Allen 35
 Allison 4
 Alpert 0
 Andrews 200
 Armstrong
 Aschhoff 8
 Bardeen 43
 Bain 68
 Bainbridge 14
 Bandler 94
 Bangh 5
 Barker 45
 Barrett 35
 Basham 34
 Baseler 4
 Bell 0
 Blandwell
 Bonn
 Boyd 5
 Brianch
 Brown
 Bruce Ba 70
 Bryan 52
 Buerner
 Buford 0
 Buxner
 Buzzes 35
 Caca
 Cabot 24
 Carver
 Carr 8
 Carlik
 Chase 29
 Chum
 Chuene 20
 Clark 15 23
 Connel 54
 Corbett 205
 Culler
 Cushman 70
 Daels 20
 Davis 79
 Day 14
 Decker 61
 Delbet 55
 DeLew
 Delle Chasse 00
 Deutsch 54
 Dennis 37
 De Sch 1212 25
 Desmarest 70
 De Vertenil
 Dibachoff 9
 Dibbitt 63
 Donaldson 3
 Drugg 85
 Eastman 55
 Ecker 207
 Ehler 143
 Eikenbary 7
 Easen 5
 Easendraith 209
 EJ 66 68
 Engelhorn 99
 Epstein 8
 Ertes 70
 Fieschi 57
 Fluber
 Fluk 63
 Fuzniblon 64
 Fotherpill 95
 Frank 90
 Fratun 7
 Frelich 35
 Freundenthal 35
 Freyer 5
 Gann 33
 Garret 5
 Gatch 15
 Gauss 20
 Gibson 203
 Gies
 Givert 60 20
 Grant 14
 Graes 5
 Green 5
 Greenwood 10
 Griffith 90
 Grudel 124
 Gros 3
 Gulliot 145
 Gutman 5
 Haggen-Torn 15
 Harrigan 204
 Harris 5
 Harrower 29 50
 Hartmann 53
 Harvey 5
 Hatch 7
 Hauch 207
 Hermann 97
 Hirschberg 0
 Horvél 42
 Hoffman 8
 Horn 69
 Hudson 35
 Hunter 16
 Huntington 70
 Iselin 164
 Jacobs 20
 Jackson 57 5
 Joly
 Judd 44
 Kehr 39
 Kelck 4
 Kellogg 5
 Kennon 237
 Kermann 95
 Key 83
 Knight 207
 Koeber 80
 Kolb 149
 Kohwber 3
 König 64 71
 Köhne 20
 Krönig 57
 Krier 203
 Kutschera 15
 Kuttner 149
 Ladd 5
 Lawrents 93
 Lawrow 40
 Lejan 63
 Leonard 9
 Lerner 4
 Lerven 205
 Lindsay 68
 Lloyd 5
 Lockrop 5
 Lower 209
 Majewski 4
 Mann 33
 Martin 70
 McCondi 30
 McDonald 85 203 206
 208
 McGlannan 7
 McKense 7
 McMoran 94
 Medel 4
 Meyer 3 207
 Müller
 Mallet 30
 Morison 4
 Morone 6
 Murph 54 7
 Newman 20
 Nicholson 45
 Nulao 20
 Ochser 59
 Ohlmscher 209
 O'Malley 5
 Oppel 114
 Ostrom 93
 Parnschoff 89
 Patric 53
 Patterson 3
 Pearce 205
 Pedersen
 Piender 53 5
 Pine 4
 Porter 69 5
 Poterom 3
 Proant 16
 Rachmannoff 205
 Randall 33 35
 Reeder 30
 Reil 35
 Remsen 60
 Rheindorf 57
 Rich 67
 Rieck 80
 Robb 94
 Roberts 20
 Rorke
 Rodman 30
 Römer 204
 Ropke 74
 Roenow 67
 Ross 69
 Ross 79
 Rowlands 5
 Russell 66
 Ryall 59
 200
 Sampson 99
 Sanderson 35
 200 145 59
 Scheide 65
 Schiffmann 204
 Schlossman 8
 Schultze
 Sever 7
 Shambach 33 10
 Shaw 59
 200 7 8
 Smajuschin 37
 Skinner 57
 Slawinski 75
 Slater 35
 Smith 89 9
 Smoler 55
 Smyth 39
 Spindel 20
 Sprengel 34
 Stallworth 5
 Stanton 47
 Sternberg 206
 Steuart 86
 Stuer 47
 Summer 29
 Sweet 36
 Theilhaber 93
 Thomas 39
 Todd 73
 Tweedy 80
 Tynon 7
 Tyrler 79
 Underhill
 Van Eggs 205
 Van Tussenbrock 90
 Vogt 203
 Von Boltenstern 208
 Von der Hooven 89
 Von Fink 42
 Von Kock 8
 Von Wraschenowski 73
 Von Zibrycki 84
 Vystan 204
 Walker 70 78 5
 Wendman 6
 Werner 84
 Wheeler 64
 White 202
 Widdington 78
 Wiener 30
 Willett 20 204
 Williams 205
 Wilson
 Wisbard 22
 Wright 27

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Stuart McOmbe Lewis S. McMurtry Willy Meyer James E. Moore Fred T. Murphy John B. Murphy
James M. Neff Edward H. Nichols A. J. Ochener Roswell Park Charles H. Peck J. R. Pennington
S. C. Pinner Charles A. Powers Joseph Ramehoff H. M. Richter Emmet Rixford H. A. Royster
W. E. Schroeder Charles L. Scudder M. G. Seelig E. J. Senn John E. Summers James K. Thompson
Herman Tubelke George Tully Vaughan John R. Wathen. CANADA: E. A. Archibald J. E. Armstrong
H. A. Bruce Irving J. Cameron Jasper Halpeasy J. Alex Hutchison Francis J. Sheppard F. W. Starr
T. D. Walker. ENGLAND: H. Bruston Angus Arthur H. Barker W. Watson Cheyne W. Sampson Handley
W. Arbuthnot Lane G. H. Makins Robert M'Kee B. G. A. Meynham Rushton Parker Harold J. Stiles
Gordon Taylor

GYNECOLOGY AND OBSTETRICS

AMERICA Frank T. Andrews Brooke M. Anspach W. E. Ashton J. M. Balcy Channing W. Barrett
Hannan J. Boldt J. Wesley Boyce LeRoy Brown Henry T. Byford John G. Clark Edwin B. Craig
Thomas B. Cullen Edward P. Davis Joseph B. DeLee Robert L. Dickinson W. A. Newman Dorland E. C.
Dudley Hugo Ehrenfest C. S. Elder Palmer Findley Henry D. Fry George Gillies J. Middle Goff
Seth C. Gordon Barton C. Hirst Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krug
L. J. Ladinski H. F. Lewis Frank W. Lynch Walter P. Maxton James W. Markoe E. E. Montgomery
Henry P. Newman Georg H. Noble Charles E. Paddock Charles B. Peabree Reuben Peterson John O.
Pelak Wm. M. Peik Edward Reynolds Earl Ries John A. Sampson F. F. Simpson Richard B. Smith
William S. Stone H. M. Stone William E. Stoddard Frederick J. Tausig Howard C. Taylor Hiram
K. Vaseberg W. F. B. Wakefield George O. Ward, J. William H. Wathen J. Whitridge Williams.
CANADA W. W. Chipman William Gardner F. W. Marlow E. C. McIlwraith V. P. Watson A. H.
Wright. ENGLAND Russell Andrews Thomas W. Eden W. E. Fothergill T. B. Helber Thomas Wilson.
SCOTLAND William Fordyce J. M. Munro Kerr. IRELAND: Henry J. Jett Hastings Tweedy
AUSTRALIA Ralph Worrall. SOUTH AFRICA H. Troup Munnell. INDIA Koderath Das.

GENITO-URINARY SURGERY

AMERICA Wm. L. Bann Wm. T. Bailefield Joseph L. Bosken L. W. Bremannan Hugh Cabot John
E. Calk Charles H. Chetwood John H. Cunningham J. B. Eisenstadt Ramon Galtaras Francis R.
Hagner Robert Herbst Edward L. Keyes, J. Gustaf Kolischer F. Krause V. D. Leachman
Bransford Lewis G. Frank Lydston Greenville MacGowan L. E. Schmidt J. Bentley Squier E. A. Thomas
Wm. H. Withard Hugh H. Young Joseph Zeltzer. ENGLAND T. W. Thomson Walker John G. Pardee
INDIA Midgendralal Mitra.

ORTHOPEDIC SURGERY

AMERICA E. C. Abbott Nathaniel Albion W. S. Baer Gwyllyn G. Davis Albert G. Fraiberg Arthur
J. Galletti Virgil P. Gibbey Joel E. Goldthwait G. W. Irving Robert W. Lovett George B. Packard John
L. Porter John Ridlon Edwin W. Ryerson Harry M. Sherman David Silver H. L. Taylor H. Augustine
Wilson James K. Young. CANADA: A. Mackenzie Forbes Herbert P. H. Galloway Clarence L. Starr
ENGLAND Robert Jones A. H. Tabby Georg A. Wright.

SURGERY OF THE EYE

AMERICA C. H. Beard E. V. L. Brown H. D. Brown Verd H. Hale Edward Jackson W. P. Marple
William Campbell Posey Brews Posey Robert L. Randolph John E. Weeks Camlet D. Woodcut William
H. Wilder Casey A. Wood Hiram Woods. ENGLAND J. B. Lawford W. T. Holmes Spicer. SCOTLAND
George A. Berry A. Makind Ramsey

CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EAR

AMERICA: Ewing W D y Max A. Goldstein J F McKernon Norval H. Pierce S. MacCuen Smith.
 CANADA H. S. Birkett. ENGLAND A. H. Cheate SCOTLAND A. Logan Turner IRELAND:
 Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA Joseph C. Beck T Melville Hardie Thomas J Harris Christian R. Holmes E. Fletcher
 Ingals Chevalier Jackson John M MacKinnon G Hudson Mahan George Paul Marquis John Edwin
 Rhodes AUSTRALIA A. J. Brady A. L. Kenney INDIA: F O'Knealy

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D LEWIS — General Surgery
 CAREY CULBERTSON and CHARLES B. REED
 — Gynecology and Obstetrics
 LOUIS E. SCHMIDT — Genito-Urinary Surgery

JOHN L. PORTER — Orthopedic Surgery
 WILLIAM H. WILDER — Surgery of the Eye
 NORVAL H. PIERCE — Surgery of the Ear
 T MELVILLE HARDIE — Nose and Throat

GENERAL SURGERY

AMERICA Carroll W Allen E. K. Armstrong Donald C. Balfour H. R. Baskinger George E. Beilby
 E. M. Bernheim Barney Brooks Walter H. Bohlig J P Carnott Otto Cantle Phillips M. Chase
 James F Churchill Leader Cohn Karl Connell Lewis B. Crawford V C. David Nathan S. Davis III
 D L. Despard L. G. Dwyer Frederick G. Dyas A. B. Eustace EHS. Flechal Herman B. Gessner Donald
 C. Gordon Tor Wagner Hammer Christian D. Hauch James P. Henderson Charles Gordon Heyd
 Harold P. Kuhn Lucian H. Landry Felix A. Larue Halsey B. Leder Urban Maes Wm. Carpenter
 MacCarty B. F. McGrath R. W. McNeely Alfred H. Noehren Matthew W. Pickard Maurice C. Pincoffs
 Eugene H. Pool H. A. Potts Martin E. Rahlberg E. C. Riebel Floyd RMay M. J. Seibert J. H. Skiles
 Harry G. Sloan John Smythe Carl E. Steinke Lester H. Tulelake Henry J. Van den Berg W. M. Wilkinson
 Emy M. Williams Edwin P. Zeisler ENGLAND: James K. Adams Percival Col Arthur Edmonds
 I. H. Houghton Robert E. Kelly William O'Hett B. C. Maybury Eric P. Gould T. B. Legg Felix Rood
 E. O. Schlesinger B. Sengster Edmonds Harold Upcott O. G. Williams. SCOTLAND John Fraser
 A. P. Mitchell Henry Wade D. P. D. WRM

GYNECOLOGY AND OBSTETRICS

AMERICA S. W. Bassler A. C. Beck Daniel L. Borden D. H. Boyd Anna M. Brownwarth E. A.
 Ballard Eugene Cary W. H. Cary Sidney A. Chaflant Edward L. Cornell A. H. Curtis A. Henry Dunn
 F. C. Eusebio George Lillian K. P. Farrer W. B. Fehring Howard G. Garwood Maurice J. Gelpi Luba R.
 Goldsmith C. G. Grotes N. Spratt Hensley T. Leecraft Hain D. S. Hulls John C. Elms F. C. Irving
 L. A. Jahnke Norman L. Knipe George W. Kosmak H. W. Kostmayer Julius Lackner Herman Leber
 Rafael Leibel Donald Macomber Harry B. Matthews L. P. McHigan Arthur A. Morse Ross McPherson
 George W. Osterbrigg Albert E. Pagan George W. Partridge Wm. D. Phillips Reginald M. Rawls
 L. W. Sauer Hezoder Schiller A. H. Schmidt Henry Schmitt Edward Schumess Emil Schwartz
 J. M. Simmons Camille J. Stamm Arnold Sternadorf George de Tarnowsky B. R. Tyrone Marie L. White
 P. F. Williams E. K. Wobma. CANADA James R. Goodall H. M. Little. ENGLAND Harold Chapple
 Harold Clifford F. H. Lacey W. Fletcher Elmer Clifford White. SCOTLAND H. Leith Murray
 J. H. Widdell.

INTERNATIONAL ABSTRACT OF SURGERY

ABSTRACT EDITORIAL STAFF—Continued

GENITO-URINARY SURGERY

AMERICA Charles E. Barnett J. D. Barney B. S. Barringer Horat Binney Theodore Brandewitz H. A. Fowler Homer G. Fuller F. E. Gardner Louis Groos Thomas C. Halloway H. O. Hamer James J. Houghton Joseph Hum Robert H. Ivy I. S. Kell H. A. Kraus Herman L. Kretschmer Martin Kretschmer Samuel Logan William E. Lower Harvey A. Moore Skirg W. Moorehead A. Nelson C. O'Crowley R. F. O'Neil H. D. Orr G. M. Peterkin C. D. Pickrell H. J. Polkey Jaredav Radda Edmund L. Saunders S. Wm. Schapiro George O. Smith A. C. Stokes L. L. Ten Broeck T. R. van Renspel H. W. E. Walther Carl Lewis Wheeler. ENGLAND: J. Swift Joly Sidney G. Macdonald.

ORTHOPEDIC SURGERY

AMERICA Charles A. Andrews George E. Bennett Howard E. Becker Lloyd T. Brown C. Herman Bacholz C. C. Chatterton Robert B. Coffield Ale R. Calvin Arthur J. Davidson Frank D. Dickens Albert Ehrstfried William O. Erving F. J. Garsia M. S. Henderson Ph. Hoffman C. M. Jacobs S. F. Jones F. C. Kidner F. W. Lamb Prescott LeBreton Paul R. Magnuson George J. McChesney H. W. Orr Archer O'Reilly H. A. Pingree W. W. Plummer Robert O. Ritter J. W. Sawyer John J. Shaw Charles A. Stone H. B. Thomas James O. Wallace James T. Watkins DeForest P. Willard H. W. Wilcox. CANADA D. Gordon Evans. ENGLAND Howard Buck E. Rock Carding N. Lighton Dunn E. Leasing Evans W. H. Hey John Morley T. P. McMurray Charles Roberts G. D. Telford.

SURGERY OF THE EYE

AMERICA E. W. Alexander N. M. Schickelhoff C. O. Darling T. J. Dethly J. R. Ellis E. B. Fowler Lewis J. Goldbach Harry S. Graefe J. Milton Griscorn E. F. Krug Francis Lane Walter W. Watson. ENGLAND: F. J. Cunningham M. L. Hepburn Foster Moore. SCOTLAND John Pearson Arthur Hy H. Stodair Ramsey H. Traquair James A. Wilson.

SURGERY OF THE EAR

AMERICA H. Beattie Brown J. R. Fletcher E. B. Fowler A. Spencer Kaufman Robert L. Leighton W. H. Theobald T. C. Winters. CANADA H. W. Jamieson. ENGLAND G. J. Jenkins. SCOTLAND: J. B. Fraser IRELAND T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA George M. Coates Carl Fletcher E. Clyde Lynch Ellen J. Patterson. AUSTRALIA V. Munro. INDIA John T. Murphy

COLLABORATING EDITORIAL STAFF FOR FRANCE AND GERMANY

Journal de Chirurgie B. Cuneo J. Dumont A. Gossot P. Lecene Ch. Lenormant R. Proust
Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete A. Bier A. Frh. von Eiselsberg
C. Franz O. Hildebrand A. Köhler E. Küster F. de Quervain V. Schmieden
Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete O. Beutner
A. Döderlein Ph. Jung B. Krönig C. Menge O. Pankow E. Runge E. Wertheim
W. Zangemeister

INTERNATIONAL ABSTRACT OF SURGERY

AUGUST 1913

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

ANÆSTHETICS

Gatch, Gann and Mann. The Danger and Prevention of Severe Cardiac Strain During Anæsthesia. *J Am M Ass*, 9 3:14, 75.
By Surg. Gynec & Obst.

The thorax has also by animal experimentation the serious fact is causing heart strain during anæsthesia. These factors are struggling pressure the abdominal viscera and the Trendelenburg position the latter being the most important. The conclusion is reached however that these agencies are harmless to normal hearts providing the breathing is adequate to prevent cyanosis.

Experiments dogs under ether anæsthesia are striking. Only four of fifteen dogs lived in the Trendelenburg position over and no quarter hours alone revived by artificial respiration. The average time of survival being twenty minutes. The same results were followed the change in position slight rise in blood pressure slight increase in the pulse rate and increasingly labored respirations, finally ceasing. In the authors opinion death is due to the sensitiveness of the respiratory center either. As long as the breathing is good, the animal withstands the head-down position without ill effects, but when the breathing fails, the heart, poorly supplied with oxygen, has to pump blood supply made greater by gravity against blood pressure increased by asphyxia. Reasoning that if primary failure of respiration was responsible for the ill effects of the head-down position, this may be violated by hypercapnia, which was found to be true.

In series of experiments with the thorax open, the heart could be revived by massage and artificial respiration, but though apparently normal, there was evidence of more or less permanent serious injury to the cardiac muscle. After second stop-

page of artificial respiration, its contractions ceased in less than ten minutes. During struggling under light anæsthesia, the heart could be seen to balloon out to a great size and soon ceased to contract.

These phenomena explain why the Trendelenburg position has no ill effect in normal heart with the respiration adequate and the muscles at rest. But when the breathing becomes inadequate during anæsthesia the mechanism by which the body compensates to the effects of gravity, the circulation becomes deranged. Asphyxia injures the cardiac muscle and raises blood pressure, while the Trendelenburg position causes an increased amount of blood to be quickly returned to the heart. This cardiac strain is greatly augmented if there is pressure on the intestines, Roy and Adams having found that abdominal compression increases the heart output 20.6 per cent.

The problem in practical anæsthesia is to minimize the dangers of these agencies the head-down position, struggling and abdominal pressure, which in the absence of asphyxia probably cannot injure the normal heart. The following suggestions are made.

The patient should be raised to and lowered from the Trendelenburg position slowly. In cardiac disease it should be used with caution.

Robust patients should be given morphine before operation and alcohol before morphine and should be anaesthetized without cyanosis.

Those with cardiac disease, pneumonia or emphysema should also be given morphine and anaesthetized slowly in the semi-recumbent position.

The production of hypercapnia protects in marked degree from respiratory failure and consequently from cardiac failure, which is always secondary to asphyxia.

L. K. ARMSTRONG

Sprengel The Choice of an Anesthetic: Operations for Acute Inflammatory Conditions of the Abdomen. *Die Wahl des Narkotikums bei Operationen wegen akuter entzündlicher Prozesse in der Bauchhöhle.* Dr. med. Dr. med. 93
By Zentralbl. f. d. ges. Chir. Grenzgeb.

Sprengel discusses the condition described by Reckel 1900 and by Amberg 1900 and called by them post-operative sepsis. The symptoms are fever, restlessness, lethargy and finally coma, generally ending in death. Recovery is exceptional. He has seen a great number of cases in the acute stage after operations for appendicitis, and believes with Sippel, Sierlin and others that the original explanation of the clinical picture and its anatomical basis (fatty degeneration of the heart kidney and especially the liver) is not satisfactory and that it is in reality an after-effect of chloroform. After he reached this conclusion he stopped giving chloroform in operations for acute inflammations in the abdomen during that time (October 9) he has not seen a single case since from February to the end of September 9 he had six cases three of them ending fatally. He maintains that chloroform is absolutely contraindicated in these conditions, and recommends the use of morphine-ether anesthesia as being without danger.

Bainbridge Spinal Anesthesia: Development and Present State of the Method; with Brief Summary of Personal Experience 1,065 Cases. *Med. Press & Circ.* 93, vol. 114.
By Surg. Guyon & Ober.

Bainbridge notes that this method of anesthesia, like all new methods, had its early errors. Then enthusiasm over its application began to wane and the later development was left to limited number who recognized its advantages and usefulness.

The author's method of sterilizing cocaine and similar drugs is as follows: Five grains of fresh cocaine crystals two grains of strong ether are added and mixed thoroughly with glass rod until paste is formed and stirred until the ether is evaporated. One ounce or 1/2 ounce of boiled filtered water or physiological salt solution is then added, making respectively 1 per cent or 1/2 per cent solution, and from 5 to 15 minims of the strong solution and from 1 to 4 of the weaker solution is the dose.

Other drugs besides cocaine having become available for spinal anesthesia, three general classes of solutions have been evolved: (1) those of specific gravity lighter than the cerebrospinal fluid, the diffusible solutions in which alcohol is used to give this gravity; (2) those with specific gravity approximately equal to the spinal fluid, to which the simple solutions in water in physiological salt solution or in spinal fluid belong; and (3) the non-diffusible or heavy solutions with glucose dextrin or gum arabic.

I 988 of the 1065 cases, solutions in sterile ether were used, and in over 500 of these cocaine was the drug. As a rule, Bainbridge now uses stovaine or tropacocaine but does not hesitate to use cocaine. In all his cases there is only one death (diffusible stovaine solution) and this was probably from status lymphaticus, one case of temporary partial paralysis with recovery one case of failure due to "dry spine" one case with atypus in which there was respiratory depression, and one case of idiosyncrasy with no anesthesia after several attempts.

Preliminary preparation of the patient is not so essential except in intestinal operations. Emergency cases have been operated on with comparatively no post-operative phenomena. Morphine may be given before anesthesia, and strychnine plus nitroglycerine lessens disagreeable symptoms.

The author usually injects between the 4th and 5th or 3rd and 4th lumbar vertebrae. Ethyl chloride or cocaine subcutaneously is used, an incision is made in the skin and the needle is inserted through the dura. If the cerebrospinal fluid does not flow freely the needle is withdrawn and reinserted. The solution is injected slowly. The body of the vertebral body in front should not be touched with the needle because of the presence there of large plexuses of blood vessels. The position of the patient and the specific gravity of the solution must be taken into consideration according to whether high or low anesthesia is desired. The author believes that head and neck operations should not be undertaken under spinal anesthesia unless other methods are contraindicated or operation essential.

The indications for spinal anesthesia are the contraindications for inhalation anesthesia. The objections to spinal anesthesia are: (1) The operator is absolutely committed to the dose given. It may be increased but not decreased. (2) Prolonged operations, the anesthetic effect may pass before operation is completed. R. H. BROWN.

SURGERY OF THE HEAD AND NECK

HEAD

Baehman Temporomaxillary Ankylosis. *Internat. M. J.* 93, 2, 33. By Surg. Guyon & Ober.

The paper is limited to short discussion of those cases of ankylosis of the temporomaxillary joint due to change in the articulating surfaces of the

temporomaxillary joint itself. Those due to cicatricial contraction of muscles etc. are not considered. Ankylosis of this joint is nearly always due to an infectious arthritis. Baehman mentions arthritis alba as occasional cause. Otitis media, parodontitis and osteitis affecting the body of the maxilla may cause infection of the temporomaxillary joint.

maxillary joint. According to Duploy and Reclus gonorrhea is a frequent cause of arthritis in this joint. Before the present days of surgery many and varied barbarous instruments were contrived to force apart the jaws. The author gives a brief résumé of the different types of operations devised to bring back motion in these cases. Most of these usually caused damage to the facial nerve. The operation of Lillieenthal is the safest and is the one the author used in his case reported.

The author reports a case of a school girl who in the autumn of 1900 had had typhoid of a severe type. She was left with ankylosed jaw and mastication was impossible. On September 9, 1901, Basbaum operated on her right side first. A hook was used to open the joint and a curette was used to clear away the adventitious bony tissue, operating mostly at the expense of the maxillary condyle. Adhesions about the joint were well broken up. A piece of temporal fascia was divided so as to leave the attachment to the inner border of the root of the zygoma undisturbed and it was passed across the articulation between the glenoid fossa and the condyle and stitched with fine catgut. The section of the zygoma was replaced and the wound closed. Eleven days later the same operation was done on the other side. The jaws could now be separated widely with little difficulty. Within two or three days the patient could drink water from a glass and from this time on movement of the jaws was encouraged. A hard rubber interdental wedge was provided to wear between the teeth for a few hours daily. The patient still remains well.

M. S. HENNINGSON.

Freilich. A Preliminary Report on the Temporal Bone and Its Anomalies. Birth in One Hundred and Fifty Cases. Bull. Lying-in Hosp. 9, 3, ix, 1.

Freilich made extensive anatomical studies of the temporal bones of one hundred and fifty cases. He gives exact measurements of the different anatomical parts with few references to their importance from the standpoint of the surgeon. He states that there is neither an eminentia articularis in the temporal bone of the new-born nor a distinct mastoid process. The lowest external portion of the temporal bone is the inferior border of the annulus tympanicus. It is important to know that the tegmen antralis is very thin and since the antrum mostly goes over the tympanum, the tegmen tympani is also very thin. The bony external auditory meatus and the bony canal are entirely missing, so that with the soft parts removed one comes directly upon the drum membrane. The horizontal canal protrudes into both antrum and tympanum and is therefore easily injured during an operation if one is not fully acquainted with these anatomical details. Both the tympanum and the semicircular canals appear to be about as large as in the adult. The description of the course and the measurements of the distances from different anatomical points

show that there are great variations in the exit from the mastoid bone.

The statement given in the textbooks of anatomy that the mastoid bone or the equivalent in new-born children does not contain cells is corrected by Freilich who found comparatively large cells in considerable percentage of cases. ENRIK SCHWALL.

Barrett. Diffuse Glioma of the Pia Mater. Am. J. Gynec. 913, lxx, 643. By Surg., Gynec. & Obst.

The author describes the brain of a man 4 years old who had shown grave mental symptoms during the last four months of life. The tumor was a large glioma growing in the subependymal substance in the right occipito-temporal region. It invaded the adjacent pia mater and also the pia of the greater part of the brain, cerebellum, cranial nerves, pons, medulla, and at least the upper part of the spinal cord. The tumor had pushed in among the fibers of the pia mater in places and lay in the subarachnoid space. From the spaces of the pia, glioma cells had invaded the lymph spaces of the adventitia of the blood vessels and extended deeply into the substance of the brain. In places these had broken through the vessel walls and formed focal metastases in the perivascular area.

The author calls attention to the infrequency of glioma tumors which invade the leptomeninges of the central nervous system so diffusely.

In this case dissemination occurred very largely through the lymph spaces of the blood vessels. There was also direct invasion of the brain substance from the infiltration of the pia. The tumor was an exception to the statement of Bruns that gliomata are solitary tumors which do not form metastases. HARVEY BROOKS.

Hudson. Consecutive Displacement of the Cerebral Hemisphere in the Localization and Removal of Intracerebral Tumors and Hemorrhages. Am. Surg. Phila. 9, 3, lxx, 462.

By Surg. Gynec. & Obst.

The author has based the development of his technique upon principles discovered and developed by him from a case of subcortical brain tumor terminating fatally within forty-eight hours after it had been operated upon. Decompression had been done at the first operation for a tumor involving the motor cortex and from which the symptoms were in no way distressing. Intracranial pressure, however, was found to be great. No tumor could be located by most careful palpation and the brain was not incised to search for it, as that should be left, as a rule, until the second operation. The patient died within forty-eight hours and at post mortem conditions, especially were noted first the cerebral hemispheres had been greatly damaged by being forced into the operative opening, second the tumor located about three quarters of an inch below the cortex became palpable with the finger tips when tension had been released by moving the brain from the skull.

The author maintains that surgery of the cerebellum has been transformed from an unpromising to a promising field by using the principle of releasing pressure in the entire cerebellar fossa.

One successful operation for intracerebral hemorrhage is reported and the statement is made that by the use of the box principle and an improved instrument, instrumental in many successful operations for intracerebral hemorrhage may be done.

A very large part of the success of these brain operations depends upon rapid and perfected technique. The article is concluded by close description of the author's own methods and also of the instruments many of which are entirely new.

FLOYD KNUX

Dennis Bilateral Cerebral Abscess Involving the Motor Areas. *St Paul M J* 9:1, 49, 51
By Surg. Gynec. & Obst.

The case reported is that of a young man of eighteen, previously seen while suffering from localized left-sided pneumothorax communicating with the pleural cavity. Nineteen days after drainage of this condition the patient had attack of aphasia, followed the next few days by others to which were added general convulsions and total right hemiplegia. Twenty-eight days after the drainage operation general convulsions were followed by bilateral hemiplegia which cleared up on the left side.

A left osteoplastic flap was raised some days later and an incision beneath the ascending frontal convolution drained. The following day he could move both legs and the right hand. Death ensued three days and autopsy revealed another abscess in the corresponding motor region of the right side as well as one in the silent area in the left frontal lobe. The site of the drained abscess was obliterated and there was no meningitis. The presence of second abscess on the right side had been considered probable but operation was not done because of the bad condition of the patient and because of the contrary opinion that the left-sided paralysis was due to extension to the base.

The following points may be emphasized:

(1) Cerebral abscess is very frequently second to thoracic focus.

(2) About one-half the cases according to Krause the abscess is solitary.

(3) The point of lodgment is usually along the course of the artery of the basilar of Sylvius.

(4) It is striking and unexpected that emboli originating in the lung tend to lodge in the brain, while those from the cavity of the heart do not.

Paralysis resulting from the causes under consideration may disappear and recur at least once or three times, due undoubtedly to the effect of edema and pressure preceding abscess destruction. Every definitely localized brain abscess should be drained. The diagnosis of second abscess must be considerably less certain than that of the first. In some instances even involving the motor area, the determination of side of the lesion is impossible as evi-

denced by two cases reported and studied by autopsy in which the lesion was on the same side as the hemiplegia. An explanation for this unusual condition has been advanced.

Rodman Report of Cases Illustrating Certain Phases of Cerebro-Spinal Surgery. *Proc M J* 9:1, 471, 472.
By Surg. Gynec. & Obst.

The conclusions as to preparation for technique of and indications for operations on the brain and cord are based upon 15 cases in the author's experience only of which are reported in detail.

In the preparation of neurological cases for operation, urotropin has been given as a routine measure, and avoidance of all infection is attributed to this. Overpurgation and morphine are undesirable.

The most important factor in the prevention of shock is hemostasis, and with this in view tourniquet is employed. Hand-driven instruments are thought to be safer than electrically driven osteotomes, although they are slower. Frequent blood pressure readings are taken during the operation, and a sudden fall is indicative of approaching collapse. Should collapse intervene or an extensive operation be necessary a two-step procedure is considered desirable.

One case of enormous extradural hemorrhage with hemiplegia whose occurrence is considered rare by Cushing, was followed by complete recovery after evacuation of the clot. In this instance an osteoplastic flap proved so satisfactory that the author believes it should always be used in exposing clots from the middle meningeal artery. Another case of inoperable tumor was almost completely relieved by subtemporal decompression, such operation, although only palliative, has definite indications, undoubted value and low mortality but should only be part of an exploration whenever possible. All cases, however in which this operation was done were not so fortunate but the improvement following exploration has been so great that such operations seem to offer the greatest chance of temporary comfort to the patient. Suboccipital decompression should not be done unless there be strong evidence of subtentorial lesion, because of its difficulty and greater mortality.

Surgery of the cord offers the same difficulties as that of the brain. The approach is best done by simple laminectomy. From Allen's recent work dogs, decompression of the cord seems feasible and the author holds the removal of extradural and intramedullary tumors offers no difficulties.

E. K. AXMINSTER

Sweet and Allen The Effect of the Removal of the Hypophysis in the Dog. *J Surg. Pathol.* 9:1, 474, 485.
By Surg. Gynec. & Obst.

The authors discuss the results of a series of experiments carried on by them during the past year which have to do with the essential character of the hypophysis. In twenty dogs, seventeen died at periods of from ten to thirty-three days from

intercurrent disease or accident. Five dogs lived for months and showed no clinical symptoms peculiar to the operation such as tremor or disturbance of gait.

The method of approach as through an incision two inches in length perpendicularly over the zygoma. The zygomatic arch was removed, the coronoid process of the mandible resected and the base of the skull approached on a direct line. The skull was trephined and the opening enlarged, the dura opened and the brain elevated by a special retractor. The hypophysis was removed by special loop forceps, which enabled the operator to remove the gland in two pieces, one for the anterior and one for the posterior lobe. A drainage was used. The Pandy-Cushing incision was rejected because of the extensive removal of bone which exposed the brain to the action of the masseter muscles. An atypical course of a branch of the pterygo-palatine artery caused several failures due to hemorrhage.

They consider that the anatomy of the gland in the dog precludes complete histological removal of all the cells of the pars intermedia. They think that physiological removal enough to produce characteristic changes, can be done, analogous to the removal of the pancreas, thyroid and parathyroids. Serial sections of blocks of tissue removed post mortem, from optic chiasm, corpora mammaria inclusive, demonstrated that only two dogs showed no remaining evidence of pars intermedia anterior. The first change noted was striking red coloration of the pancreas, which had the appearance of the gland with height of digestion, but no microscopical changes were noted. Second, in point of time as trophy of the genital apparatus especially the testicles. The dogs in which one testicle was removed at the time of operation showed marked atrophy of the remaining organ, due to complete loss of spermatogenic cells. One dog which lived thirteen days showed no clusters of spermatozoa in Sertoli cells, nor free in lumen. Spermatozoa of first and second order were present in moderate quantity. The epididymis was crowded with spermatozoa. Thirdly increase in weight, this comes late and it is question whether it is due to the removal of the gland directly or to loss of some function controlled by the hypophysis. In three dogs autopsied after several months the thyroid presented a increase in colloid and flattening of the cells of the alveoli.

They conclude that the hypophysis is not essential to life and that the three changes above noted undoubtedly follow its removal. Changes in pancreatic digestion were not studied. They are unable to say whether glandular rests or parts of the gland left behind can compensate for this atrophy of testicle. They agree with Aschner except in two particulars, that removal of the gland from adult animals is not without effect, and that atrophy of the testicles is due to removal of the tuber cinereum. The latter they consider purely an academic one. Their results cause them to believe

that the hypophysis is not essential to life. The essential or non-essential nature of the gland is an important surgical problem, that the only indication for removal is intra-cranial pressure. They think that the intra-cranial method of approach is preferable to any other that Frazer's operation is the best anatomically and technically.

DONALD GORDON

Mayer. New Formation of Nervous Cells in an Isolated Part of Nervous Portion of a Hypophyseal Tumor in Case of Acromegaly with Diabetes, with a Discussion of Hypophyseal Tumors Found so Far. *Am J Surg* 93, 1912, 653. By Surg. Gynec. & Obst.

The paper is based on clinical and post-mortem study of a single case. The patient was a man of 52 years who had had six years typical acromegaly associated with paraneuritic condition. During the last year he had been known to have had persistent glycosuria.

At autopsy the only lesion of importance was tumor of the hypophysis. The structure and mode of propagation of the tumor is described by means of text and figures. At one point some of the nervous portion of the hypophysis had been in the process of invasion, distention completely isolated so as to form an independent island of the nervous portion on the glandular tumor. This island there as striking monostraty of both glandular cells and cells of the nervous portion.

The glandular elements are larger and have greatly increased number of nuclei. There was also unquestioned new formed nerve cells with distinct Nissl bodies.

The author briefly reviews the descriptions in the literature of tumors of the hypophysis associated with acromegaly and the attention to the fact that even though the nomenclature differs very markedly the descriptions show some uniformity. The failure of more uniformity in descriptions the author suggests explanation in the first of his conclusions, which are as follows:

The changes in the hypophysis in acromegaly seem to be more constant than descriptively terms in the literature could suggest. The difference of opinion may be due in part to a limitation of the examination to only a few portions of the tumor.

The change in this case is identical with that described by Harlow Brooks. It also also the mode of propagation of the tumor.

3. In sequestered part of the nervous portion unmistakable new formation of nerve cells with Nissl bodies has occurred besides thermoneurostics. B. ST. B. BOOKS.

NECK

Sinjuashin. Tumors of the Carotid Gland (Über Geschwülste der glandula carotica). *Med. Rundschau St. Petersburg* 9, 1, 1912, 34. By Zentralbl. f. d. ges. Chir. u. L. Grenzgeb.

Sinjuashin gives a short account of the histogenetics of the tumors which according to Paltauf and

Marchand, rise t the bil reaction of the common carotid artery from the carotid gland. According to the investigations of the zoologist Kashtchenko, the carotid gland develops from the adventitia f the internal carotid and appears in the embryo as a simple thickening of the adventitia, consisting of loose connective tissue with cell nests. The involar form of the organ develops later. Histologically the gland consists of capsule from which firm connective tissue septa penetrate int its substance. The spaces between the septa are filled with epithelioid cells with large nuclei and distinct chromatin structure, lying close t one another so that there is direct transition from these so-called specific cells to the endothelium f th very numerous vessels. Of the twenty-five cases published since

By the thor has operated successfully only two. Fifteen cases were i women, nine in men seventeen times the tumor was on the left side, seven times on the right. The patients were bet een twenty five and thirty years f age. The tumors were in the superior carotid triangle and were as large as goose-egg, tolerably hard, nodular movabl laterally but not up and do n and showed pulsatio which ceased on pressure ver th carotid.

The operatio is not without danger as th tumors are often firmly attached t the carotid or the vagus and frequently demand resection of the nerve t artery (in so of 5 cases). The tumors must be extirpated for K. Wilmann and Dobromyrs also have observed malignant degeneration nd recurrence. The tumors can hardly be removed without at least temporary ligation of the carotid because of the severe hemorrhage. Five good colored microphotographs and a bibliography close the article.

Vom REXNER

Smolek: Ligation of th Common Carotid (Zur Unterbindung der Carotis communis). Beitr. Klin. Chir. 9, 3, 1909, 404.

By Zentralbl. f. d. ges. Chir. 1, Grossege

Ligation of the carotid communis has been known since the close f the 8th century. Hemiplegia and convulsions occupy the central position of interest in connection with this procedure. According t Hartmann, these phenomena are not due to infection, nor have changes in the suture material brought about any improvement. Anemia, and not embolism seems to be the main cause of the softening. In 878, Denon first attained cure without cerebral effects by slow and gradual ligation. The method suggested by Cael and Boarl, i. e. an accompanying ligation of the ven. jugularis int. did not void serious disturbances in the mot. and sensory functions. The most practicable method of avoiding sudden anemia is the gradual interruption of the blood stream. The technique for this procedure was worked t by Jordan in 1907 who has designated it as loose and temporary ligation of the carotid occupying some forty-eight hours, accompanied by local anesthesia, which is required for the recognition of cerebral effects.

The following are absolute indications: Hemorhages which may be fatal, relatively definite cerebral diseases, such as epilepsy marked by increased brain pressure, neuralgia, hydrocephalus, and inoperable tumors. A review of ten cases proves the superiority of slow constriction (Drosselung) over direct and rapid ligation. T cases which were not slowly ligated died of serious cerebral maladies, while the cases which were slowly ligated remained free.

Slow ligation was accomplished with rubber drains whose ends, outside of the wound, were gradually turned road. However, slow ligation with rubber tubing is not practicable because of the uncertainty attaching t the degree of tisting.

Ligation f the externa before resection of the upper jaw which has been recommended, was found in one case t be insufficient. Strickland.

Hagen-Torn: The Infl. ence of Insufficiency and Atrophy of the Thyroid Gland on Diseases of the Joints (Über den Einfluss der Insuffizienz und Atrophie der Schilddrüse auf Erkrankungen der Gelenke). Chir. Arch. V. Jahrgang, 9, 3, 1909, 33.

By Zentralbl. f. d. ges. Chir. v. 1, Grossege

The author discusses diseases of the joints which occur in connection ith trophy of the thyroid gland. From study of ten cases he concludes that in the physical examination of every rheumatic patient, attention should be given t the thyroid gland, especially in those cases where the gland is not enlarged. Careful observation should be made for the detection of subjective or objective symptoms of hypo- and hyperthyroidism. Cases of thyroid atrophy are frequently associated with joint disease. Administration of thyroid preparations improves the general condition and brings about disappearance of the symptoms of hyperthyroidism. At the same time the pathological processes in the joints subside, even in cases with marked anatomical changes.

Complete recovery is possible as soon as normal thyroid function has been restored. The treatment must extend over considerable period, as premature cessation of treatment leads t recurrences of the joint symptoms. In obstinate cases, such as chronic articular rheumatism and arthritic deformans in which there is only temporary improvement under thyroidin administration, transplantation of thyroid tissue is indicated after the method of Christiani. Hirsz

Kutschera: Against the Water Etiology of Götter and Cretinism (Gegen die Wasseretologie des Kretinismus und des Kretinismus). Mittheil. und V. Jahrgang, 9, 3, 1909, 303.

By Zentralbl. f. d. ges. Chir. v. 1, Grossege

On the basis of long years of study in the Steiermark and the Tyrol, the author opposes the old nd seemingly well established idea that water plays part in the etiology of götter and cretinism. He has widened the usual conception of cretinism to include all those bodily nd mental developmental

disturbances occurring in the endemic regions and produced by the cretinogenic injury regarding all of these as evidences of cretinous degeneration. These pictures vary from the normal to the severest conditions of hypothyroidism and deal mainly with goiter. Goiter belongs to it and there is no cretinism outside the goiter districts. The most common injury produced is common by the endemic goiter is not the goiter but injury to the nervous system. The agent has a strumous action, when it affects an adult, more resistant body and cretinism in a child in its earliest years.

The author assumes, on the basis of his experiences, that the water theory of goiter is not tenable because (1) the impression that goiter and cretinism is bound to certain districts has been shown to be erroneous; it was thought that the disease was so exquisitely chronic that its variations were developed only in decades and centuries; (2) goiter and cretinism are not evenly distributed among the inhabitants of the endemic districts, as would be demanded by the water theory, and the disease is not confined to the community but to certain houses or dwellings, i.e., it is house disease like beriberi. Hence cretinism is pronounced family affliction. It is not, however, hereditary as the children of cretinous mothers may develop normally provided they are

removed to a neighboring house free from goiter and cretinism. These and many other observations speak in favor of the view that the disease is transmitted by contact.

The author regards the results of his investigations on the formerly cretinous Tostenhuben at Vadana, his investigations in Tyrol and the experiences of other observers as convincing. The more exact investigations of goiter sources have shown that goiter endemics, especially the acute ones, were never related to the water supply but to the community of dwellings (Examples noted by the author young dogs supposed to be affected by goitrous servant girl and the well known endemics in fish ponds.) The positive animal experiments may be explained easily by supposing that the animals in the endemic regions were infected by contact. A parallel to the author's view as to the etiology of goiter and cretinism is found in the Chagas disease which is produced by the bite of an insect, which transmits a variety of trypanosome. From all his observations and reflections, the author is convinced that goiter and cretinism is a disease confined to the community of dwellings and transmitted by contact, possibly through some intermediary host, and it is not confined to the drinking water supply.

LORENZOFFER

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Thomas: A Study of Empyema, with Special Reference to the Feasibility and Importance of Dependent Drainage. *Am. J. M. Sc.* 93, July 1915.

By Surg., Gynec. & Obst.

Thomas reports in detail nine cases of empyema. From a study of these cases and a formalin hardened cadaver specimen of an empyema undisturbed by an opening during life, he draws a few inferences which are at variance with the generally accepted view. We have not appreciated the extent and nature of adhesive formation developing in connection with empyemas, especially the acute variety. The massive parietal type extends usually to the bottom of the normal pleural cavity and is not unencysted or general, but completely walled off above from the rest of the pleural cavity by adhesions. This explains the slight mobility of the dullness on percussion, as well as the fact that the upper level of the dullness is not in a straight line as it should be if the fluid was unencysted and free to seek its own level. Skoda's resonance may not be due to relaxation of the lung above the pus, but to the fact that the functioning portion of the lung is doing compensatory work.

Adhesions between the lung and chest wall will not offer serious obstacle to re-expansion of the lung because they develop between parts normally in contact. That double empyema can be safely

opened on both sides with same operation must be explained by the fact that the air admitted does not produce a tal double pneumothorax, since it enters on each side only the firmly walled-off empyema cavity. Total collapse of the lung is prevented by the firm adhesions which protect the lung against the pus pressure before drainage. There is no sudden or dangerous change of pressure in the thoracic organs from the usual sudden evacuation of pus, but general substitution of pus by air which has a pressure of fifteen pounds to the square inch.

The so-called encysted or localized empyemas are small probably because they develop in the fissures of the lung or between the lung and diaphragm, and therefore because of the difficulty with which the pus is diffused in these situations.

The most important factor in preventing the obliteration of the empyemic cavity and closure of the sinus is the pressure of the air admitted through the drainage opening into the empyemic portion of the pleural cavity. Here it neutralizes the expanding effect of the air coming through the trachea. Murphy overcomes this completely by aspirating the pus and injecting formalin-glycerin solution. The drainage methods still prevail. The ideal drainage method is that based upon the suction or siphon principle. The chief objection is that devices for applying it generally leak air around the tube. It is not yet determined how rapidly an empyemic cavity as a baccus may be permitted to close.

The size of the drainage opening has an important bearing upon the later expansion of the lung. The lung probably can not expand until the entrance of air through the drainage opening is so diminished by contraction of the opening and blockage of the space in and around the tube by the escape of pus, that with absorption of the air already in the cavity there is developed a negative tension external to the lung to permit the normal internal pressure coming through the trachea to become greater than the external pressure. For this reason cannot safely employ in empyema the large drainage opening as in ordinary abscesses. The effect of the large opening in empyema is also after the farther operation by the permanent non-expansion of considerable portion of the affected lung. An opening through the seventh rib or interspace of given size will drain more perfectly than one at the usual level, and will better prevent the entrance of air since the pus will be constantly escaping and tending to fill the space in and around the tube. There will be little danger of the drainage tube falling into the empyemic cavity since it must travel against gravity to do so, and if this accident happens the tube could probably be reached with forceps. In some cases the much-thickened pleura is the result probably of organization of layers of fibrin deposited in the acute stage.

Of 6 massive empyemas treated with dependent drainage it may be said that the time necessary for a cure as long as the average determined by Schreiber (14½ weeks) or the average in Peckley's cases (99 days) and therefore there were no persistent lapses. In the nine cases there were no deaths. This method deserves further trial and study. L. G. DW.

Lawrow The Surgical Treatment of Pleural Empyema with Especial Reference to After-Treatment by Aspiration. (Die chirurgische Behandlung des Pleurampyems unter besonders Berücksichtigung der Nachbehandlung mit Aspiration). *Berlin Klin. Wochenschr.* 9, 1902, 67.
By Zentralbl. f. d. ges. Chir. u. Gynäkol.

Aspiration after laparotomy with resection of the ribs corresponds to the physiological healing by lung expansion. In three cases, the author used the apparatus which as demonstrated by Nordmann in 1901 at the 36th Congress of the Deutsche Gesellschaft für Chirurgie and description of which he gives. The author mentions slight modification of his apparatus, which consist in the attachment of a 5 cm. wide strip of rubber to that surface of the rubber plate which is turned toward the patient in such a way that it may be inflated. This avoids pressure and decubitus from the glass receiver. The apparatus is attached by means of gum arabic. If there is no pneumatic ring present, attachment should be made only to this. The drains which are introduced into the wound should be fastened to the edge of the rubber plate. After connecting the rubber aspirator

negative pressure is begun. The apparatus may be allowed to remain for ten or twelve days, during which time the patient may leave his bed. According to the amount of secretion bandages should be changed anywhere from daily to every fourth day. The defects of this apparatus are pressure by the receiver, the direct attachment of the rubber to the skin, and the facility with which the projection may be broken off from the receiver.

At first only slight negative pressure 5-6 mm. Hg. should be employed, and this should be gradually increased to a maximum of 20-30 mm. Hg. With fresh empyema maximum of 50-60 mm. Hg. should not be exceeded. No pain should be produced. Medium negative pressure has apparently no influence on the heart action respiration however usually becomes deeper and the capacity of the lung seems to be decidedly greater than under normal atmospheric pressure. HOFFMANN.

Majewski Surgical Treatment of Pulmonary Empyema (Leitende chirurgische Behandlung). *Pract. chir. woch.* 9, 1902, 66.
By Zentralbl. f. d. ges. Chir. u. Gynäkol.

After detailed discussion of the methods for preliminary examination of the lungs and thorax, the author recites the clinical histories of six cases. The conclusions are as follow: It is doubtful whether the changes in the costal cartilages in patient with fixed enlarged emphysematous chest are primary. It is more likely that they are secondary phenomena, and dependent on changes in the lungs themselves.

The index toons for Freund's operation must be made to include suitable cases of primary emphysema. The operation must include the resection of the 5th ribs and be bilateral, being done by the 2-step method as otherwise a relapse may occur and unilateral extra-pleural emphysema with pressure symptoms take place. The operation is to stimulate the breathing (false joint therefore 2 cm. of the cartilage must be removed and the muscle flaps transplanted between the ends. In most cases, the results are satisfactory. Besides the gratifying subjective improvement objective improvement can be obtained by respiratory exercises for which the higher altitudes are favorable. WUNDERLICH.

HEART AND VASCULAR SYSTEM

Delacretell Two Cases of Penetrating Wound of the Heart Treated by Operation. *Rev. M. J.* 9, 2, 1904.
By Serg., Gynec. & Obst.

The author reports 2 cases of penetrating wound of the heart observed and operated on by him within three months. The first case was a negro boy aged 4 who was accidentally stabbed with an ice-pick. It was operated on within three hours after the accident. A penetrating wound of the left ventricle was found. The wound was closed with five interrupted silk sutures after the first sutures introduced had cut loose, due to being tied

too tightly. He had a somewhat stormy convalescence in which, on the eleventh day after hearty meal, he evidently had emboli in the right radial and renal arteries, noted clinically by the absence of the pulse and numbness of the right hand. The urine was markedly albuminous but no red corpuscles were present. Recovery was practically complete.

The second case was a colored boy aged 15. He was operated on five days after injury. The muscle of the heart was so flabby that it was impossible to draw the heart far enough out of the chest cavity to locate the wound. The patient died before the operation was completed. At post mortem, punctured horizontal valvular wound of the right ventricle one half inch long and about half way between the apex and the base of the heart was found penetrating into the ventricular cavity.

The author concludes as follows:

A great many cases of penetrating wounds of the heart might easily escape recognition if too much reliance is placed on the failure of the probe to enter the thoracic cavity, but when it is borne in mind that a stab wound in that position usually has to traverse several layers of muscles, the fibers of which run in various directions, it can easily be conceived how difficult it would be to detect the opening into the chest by means of a probe. All such wounds which give rise to symptoms of shock and collapse (even in the absence of other signs) should be immediately enlarged and the thoracic walls sufficiently exposed for thorough examination. A wound if entirely found, would necessitate an immediate operation.

In one hundred and twenty-four cases of suture of the heart after injury the proportion of recoveries is 40 per cent. there seems little doubt that the proper treatment for all such cases rests with the surgeon and not with the physician.

3. Focused or chromic catgut may be used with safety but the author prefers than silk applied not too tightly.

4. Complete exposure of the pericardium and heart can easily be obtained by removing the fourth and fifth costal cartilages, thus leaving the sixth rib in position as support to the heart when the patient is in the erect position.

5. There are two distinct advantages in opening the pleural cavity first owing to the collapse of the lung in the upper part of the thorax, the pericardium and heart are more completely exposed and the operation thereby much facilitated secondly it permits of thorough examination and cleansing of the pleural cavity from all blood clots, which we can never exclude with certainty the pleura being in most cases wounded at the same time as the pericardium.

6. In addition to the usual treatment for hemorrhage we bag kept over the heart continuously and hypodermics of morphine are extremely useful adjunct for allaying the distress and pain. Complete rest in bed for at least three weeks after the injury must be enforced for fear of embolism.

The ordinary straight forward incision gives

ample room, which can be further increased if necessary by making transverse incisions at right angles to it.

M. S. HARRIS

PHARYNX AND ESOPHAGUS

Morrison. Congenital Stricture of Lower End of the Esophagus: Case Treated by Gastrostomy Followed by Dilatation with Stricture Through the Esophagoscope. *Lancet*, Lond., 9.3.1904. By Surg. Gynec. & Obst.

The article describes the case of a boy aged 3 years, first seen in August 1901. Since he was three months old there had been difficulty in swallowing. During the last three months he had become much worse, vomiting almost immediately after everything he took. His weight was 20 lbs. An X-ray photograph (with bismuth porridge) showed stricture of the esophagus at the upper border of the tenth dorsal vertebra. On September and gastrostomy was done by Morrison. The stomach was not atrophied and a No. 1 English catheter was inserted through the pylorus into the duodenum.

October 7th an ineffectual attempt was made to pass a ureter catheter through the stricture from below by means of a cystoscope through the gastrostomy opening. Attempts at bougie treatment under an anesthetic and the allowing of thread from above failed. The child steadily and rapidly improved, and on October 31st returned home weighing 20 pounds. On November 9th he was readmitted for further treatment of the stricture. The gastrostomy opening was still his sole resource for feeding, as he vomited everything he took by the mouth as before. On November 4th, under chloroform anesthesia the esophagoscope was passed and a stricture was seen at a distance of 26 cm. from the incisor teeth. A fine stiff whalebone bougie of the calibre of a ureter catheter was passed down through the esophagoscope into the depression and after little resistance it entered the stomach. After this, in the same way, a No. 6 graduated gum elastic bougie was passed into the stomach and then No. 8 and 10 were left in situ for four hours. From this date the child swallowed liquids well, only vomiting occasionally.

On January 7th the esophagoscope was again introduced and the strictured portion appeared to be large enough to admit the tip of a little finger. The report of January 10th stated that he was then able to eat solid food and never vomited. He had had nothing by the gastrostomy wound for a month. During March the child continued to improve and the mother was able to pass a No. 10 bougie without trouble.

DONALD C. BALFOUR.

Bessler. Early Diagnosis of Cancer of the Esophagus: A New Technique of X-Ray Examination. *J. Am. Med. Ass.* 9.3.1904.

Surg., Gynec. & Obst.

The principle of this method is to plug the lower end of the esophagus so that a bismuth mixture is

retained long enough for a picture to be taken. Its water apparatus is as follows: A T-tube one end of four foot length of 4 mm. rubber tubing is attached to a rubber bag covered with silk and having a brass tip at its lower end. It is eight feet long. At the upper end of the tube is a cock. A surgical syringe of 200 cc. capacity containing water is used to distend this tubing which is then of uniform shape and about 10 cm. in circumference. The tube is passed like a stomach tube until the bag is just inside the stomach when it is filled with water by means of the syringe, the cock is closed and the tube is pulled up so that the bag is tightly drawn into the cardiac orifice of the stomach. The patient then exhales completely raising the dome of the diaphragm to high level, and the tube is held tightly in this position and fastened about the forehead or around the neck of the patient. A suture of from one half to one pound may be employed to hold the bag tightly against the cardia. A string inside the tube guards against breaking but still permits the first 4 cm. of the tube to be pulled out for the examination of the diaphragm. Then mixture of bismuth, soda and ter is run into the gullet through catheter until the mixture appears the mouth.

With the patient sitting and roentgenographs are taken in the lateral dorsal position with the left side of the body to the plate. After the plates are taken the tube is released and the bismuth flows into the stomach. The cock is then opened, and the water flows out of the bag. Plates of the stomach may then be made. When stomachs are present this is not practicable and necessary for diagnosis. W. H. B. L. W.

Von Fl. k. Plastic Repair of the (Esophagus) (Über plastischen Ersatz der Speiseröhre). Zentralbl. f. Chir. 9, 3, 1, 515.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author used the body of the stomach, the pylorus and the horizontal segment of the duodenum to replace the esophagus of a female patient, forty-seven years old suffering from carcinoma of the gullet. The procedure was as follows: A median incision was made from the umbilicus to the xyphoid cartilage. The stomach was liberated on its greater and lesser curvature by sectional ligation of the lesser and gastro-colic omentum from the edge of the carcinoma to the vertical part of the duodenum. The duodenum was severed at the junction of the horizontal and the vertical branch; the latter was closed. The ninth rib was resected between the parasternal and mammary line and the parietal peritoneum was opened. The stomach was then brought through this opening and drawn posterior to the thoracic wall, simultaneously. The cardiac end of the stomach was fixed to peritoneum at the resection aperture. A posterior gastro-enterostomy was then performed. A thoracic skin tube was made and sutured to the free opening in the duodenum.

In the second stage of the operation, the esophagus is resected in the lower portion of the neck and the upper end fastened to the upper end of the antithoracic skin tube. This latter part of the operation could not be carried out as the patient died of perforation of the carcinoma. The author believes that his method can be tried out easily and offers great advantages. J. KATZ.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Grant. Lignous Phlegmon of the Abdominal Wall. J. Am. Med. Ass. 3, 15, 30.
By Surg. Gynec. & Obst.

Grant says it is probable that this disease has been observed under some name or form more frequently than has been reported. It is not known that lignous phlegmon (though observed most frequently in the neck) may occur in any part of the body. During the last 6 years substantial contributions have been made to the literature of the subject in case reports and contributions.

The only pathognomonic sign is extreme hardness, diffuse or nodular. The skin is not early involved, pain, tenderness, and fever are usually slight. The diagnosis is extremely difficult even when such condition is suspected. The greatest difficulty is differentiation from malignancy. Leukocytosis favors phlegmon. Slow absorption or suppuration may take place. Histologically, inflammatory new growth with polymorphous and plasma cells is seen. Bacteriologically small Gram negative cocci

(staphylococci) are found (though Davis says many varieties of bacteria have been reported: Klebsiella, Loeffler pseudodiphtheria, streptococci, bacillus proteus, staphylococci, blue and yellow—II of attenuated virulence).

Grant reports 1 case, both of the abdominal wall. He concludes that the disease occurs generally by either middle life with impaired resistance. The immediate exciting cause is also infective process with or without trauma. It is slow degenerative inflammation affecting connective tissue, fascia and muscles, and finally the skin. The usually slow development, interrupted and protracted course and final resolution are characteristic. The duration is indefinite but is usually from several months to 1 or more years. L. G. DW.

Noel. Operative Treatment of Tuberculosis of the Peritoneum (Operative Behandlung der Bauchfelltuberculose). Zentralbl. f. Chir. 9, 3, 1, 446.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports forty-one cases of tuberculosis of the peritoneum which were treated surgically.

during the years 1896-19 at the Mäsekrankenhaus of Hamburg. In each case simple laparotomy was performed, using an incision from umbilicus to symphysis, and draining if ascites is present. No further procedure was carried out in the abdominal cavity. In almost every case the wound was promptly closed, 1 ne with silver wire. Sixteen of thirty-three cases operated before 19 have died of the remaining seventeen cases (which makes fifty per cent permanent cures) twelve were re-examined and had remained cured. In this series of thirty-three cases, twenty-three had ascites and ten none. The author believes that the combination of peritoneal tuberculosis and ulcerative tuberculous of the intestine offers an especially poor prognosis when treated surgically. **BRANDS.**

Bagdadi Subphrenic Abscesses (*Empyema subphrenico*)

Clin. chw. 9 3 xx.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

This comprehensive monograph gives a historical review with about 50 references. Portrayal of the anatomy of importance in the spread of inflammatory processes from the abdomen to the pleural space are the large openings, further slits in the muscle fibres, in which the pleura and peritoneum approach each other as far as the subcostal perforating lymph vessels (Küttner-Sapey) finally the bursa pleuralis retrocardialis (Broeman, Favara) which develops in the embryo from the bursa omentalis and may be preserved as a small outpouching ventrally and to the right of the oesophagus. Exact topography of the organs and recesses bordering on the diaphragm. After consideration of the pathologic significance, the following division is made: (A) *cavum superius dextrum* between the right lobe of the liver and the diaphragm 36 per cent of the becomes come from the liver bile tracts, and appendix. The falciform ligament separates this space from (B) *cavum superius sinistrum*. This falls into two parts. *Cavum medium* corresponding to the left lobe of the liver and the stomach. Twenty-six per cent perforations of the stomach and liver. *Cavum laterale*, bounded by the stomach, colon, and spleen, 8 per cent. (C) *Cavum inferius subhepaticum* bile tracts 5 per cent. (D) *Cavum posterius retrogastricum*. Pancreas 4 per cent.

Outside of these intraperitoneal suppurations (exception D) we find retroperitoneal becomes, 24 per cent. They force their way through the cellular tissue between peritoneum and diaphragm especially at the parietocolic angle. Appendicitis, colitis, Peritonitis more frequently on the right. Coarse resorption rarely. Involvement of the pleura frequently (a) as regional sympathetic-inflammatory processes in 50 per cent, then as an extension of the suppuration or perforation in 5 per cent, more often in the retroperitoneal forms. Then there results free pleural empyema, an epiphrenic abscess. Lung becomes perforation into bronchus, 6 per cent. On the left correspondingly pericarditis, mediastinitis.

Detailed description of the clinical symptoms. Of importance in the Röntgen ray examination are disappearance of the recessus costodiaphragmatici. Immobility of the diaphragm high standing diaphragm, often above the dark shadow a spherical shadow of unequal density corresponding to superimposed air bubble, bounded above by the diaphragm and movable with change of position.

Consideration of the individual forms of the disease with fourteen personal case histories. Four operative routes are considered. Laparotomy with an epigastric abscess. Suture of a gastro-intestinal perforation not to be recommended. 2. Rib resection without injury to the pleura (Lundborg, Auvray-Marwedel, etc.). 3. Transpleural route. 4. Lumbar incision. The a thorax material comprises three gastric, two duodenal, three hepato-biliary air appendicular abscesses. Nine cases were cured spontaneous perforation into the bladder and bronchus, each one five after transpleural operation, laparotomy lumbar incision each one. **HORR.**

Ehler Herniology of Inguinal Hernia (Právníky k herniologii kyj tréšné) *Car. list. 161* Prague, 9 3 14, No.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author gives the results of operations of inguinal hernia gathered in the last eight years. In spite of the most searching observations of anatomical characteristics which were made for the recognition of congenital hernial sacs, the question of differentiation between a congenital and an acquired sac is not always possible. In addition to the points given by various authors in the literature there is one which was not pointed out before namely that the congenital hernial sac rises on a level with the tunica vaginalis propria as an original continuation of it, while in the acquired hernial sac it may lie on the opposite side.

I. A few of his own observations he could determine this symptom in young narrow sacs with certainty. He discusses the various forms of diverticula and recesses of the hernial sac, which he classifies into five groups namely simple dilatation flat recesses in the hernial sac wall pouches along side the hernial sac cavity, divided and finally double sacs. In his second article he takes up chronically inflamed swellings of the abdominal wall, following operations for hernia. Cases are cited. In a man 46 years old, two years after radical operation for right-sided crural omental hernia which could not be reduced and a left-sided inguinal hernia, there was observed cloudy urine and difficulty at stool. There developed at the insertion of the right rectus muscle on the symphysis a tumor the size of an egg hard and nodular which seemed to grow from the bladder. The scars of the operation for the hernia showed no changes. The diagnosis lay between carcinoma of the bladder or a connective tissue tumor in its vicinity possibly an inflammatory swelling. At the operation which

was undertaken it was seen, after opening the peritoneum that the tumor was made up of the omentum and the posterior surface of the crural hernial sac. It ended into the bladder as tumor with concentric layers and consisted of a chronically inflamed connective tissue new formation. It rose at the site of infected silk ligature. There was also fistulous tract into the bladder. The inability of suturing the peritoneum because of the retraction of about four-fifths of the bladder necessitated plastic operation with the omentum. The pressure of the tumor against the bladder and the opening of the fistula into the same explained the symptoms of the bladder. The severe pains and difficulty in defecation were probably due to the stenosis of the ureters of the omentum and the unity of the bladder. The second case is remarkable because of the size of the tumor formation (1 man 3 years old) who shortly before his admission into the hospital had been operated for left sided inguinal hernia there developed, at the time of his admission still present a mass in the abdominal wall the size of loaf of bread 1 m. diameter which seemed to extend into the abdominal cavity. It was of hard consistency without border. There was no local rise in temperature. Finally the tumor ruptured and with the contents there came out several silk ligatures which had been inserted during the operation. The tumor disappeared gradually.

The other cases of inflammatory tumors following formation of intussusception after radical operation are listed. The third case is a radical operation in this type of tumor after extirpation of stenosis incisions. Although pure differential diagnosis of the chronic inflammation new formation cannot be made from microscopic still present definite type. It appears after hernia operations in the same or it is almost asymptomatic growing tumor which does not seem to affect the neighboring organs the conclusion of inflammatory tumor resulting from infected ligature is drawn.

The third paper is devoted to traumatic inguinal hernia. The author describes three cases of inguinal hernia with congenital hernial sac which remained manifest through trauma.

From these observations it can be seen that traumatic hernia can result from single trauma through an accident. In judging the manner of production of the traumatic hernia the question arises if it is possible for the peritoneum in the vicinity of the internal ring to become so loosened through injury or through the force of single action of the abdominal pressure that a sac can be formed in the inguinal canal? The older authors regard it as physiological impossibility because of the anatomical connection of the peritoneum. Later however considers it proven by finding of small hernial sacs up to 1 cm. length, in operations on hernia resulting from single direct or indirect trauma. They present tears of the musculo-extravasation of

blood under the serosa which plainly show that the peritoneum was loosened from its fixation.

The majority of cases of traumatic hernia must take for granted a definite predisposition either a preformed hernial sac or patent vaginal process through which possibility of the bulging of the peritoneum is supported.

The diagnosis of traumatic hernia cannot be definitely made without operation.

The last article he deals with myoplasty as radical operations for inguinal hernia and gives a new method of operation. The radical operation for inguinal hernia by Bassini must be regarded as one of the first and simplest myoplastic operations, because it forms double layers of the posterior wall of the inguinal canal out of the musculature of the abdominal wall. Large inguinal hernia the method of Bassini fails because it is impossible to suture the abdominal opening sufficiently. The thickening of the muscle layer in myoplasty of inguinal hernia is seen to be very important when one remembers how the inguinal region comports itself after the muscle layer which has been fastened, begins to contract.

Bearing in mind that the inguinal and crural openings are superimposed one on the other and are separated only by Poupert's ligament, one takes for granted that the contraction upward and inward of the muscle which has been attached to this ligament will necessarily produce widening of the crural opening and thereby lead to the formation of the crural hernia. This observation is actually made after using the rectus muscle. The best method is the use of the internal oblique and the transversalis as the author has described. The muscle is fully separated in the course of its fibers. The muscle flap is turned downward and inward and is sutured and fastened to the pubic tubercle and sutured to Poupert's ligament. The external aponeurosis is fastened over the flap as before. The object of radical operation is achieved because the closure of the opening is made with the strong muscle which contracts and in the time of the stitching can make the opening smaller. It is in fact the ideal closure. PRZYBYLOWSKI.

Judd. A Single Transverse Incision for Use in Double Inguinal Herniotomies. *Old Dominion J. Surg. Gynec. & Obst.* 9, 3, 21, 33.

The object in presenting this paper is to call attention to the use of the transverse incision instead of the oblique incisions in cases of double inguinal hernia.

The incision is made from 8 to 10 cm. in length, or longer in fleshy patients, from a point midway between the internal and external abdominal rings of one side to a similar point on the opposite side, thus connecting the two inguinal canals. The incision passes directly through the subcutaneous fat and exposes the aponeurosis of the external oblique muscle. The fat around each external ring is dissected away for a short distance and

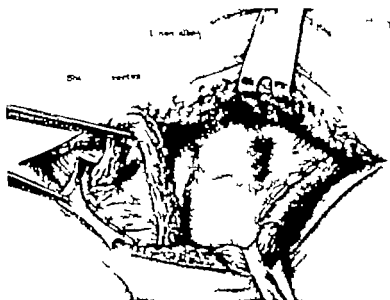


FIG. 1 (Judd.) Skin and superficial tissues reflected exposing the fascia of the external oblique and showing external rings and cords. The incision through the external oblique fascia is made one-half inch to the inner side of the inguinal canal in order to make a flap for overlapping.

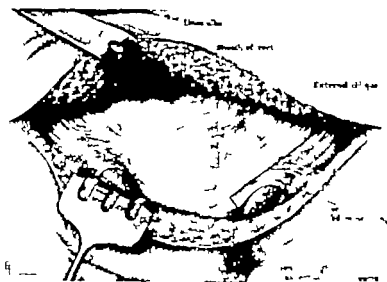


FIG. 2 (Judd.) Fascia of external oblique has been reflected. Cord and sac reflected up peritoneum, dissecting the sac from the cord.

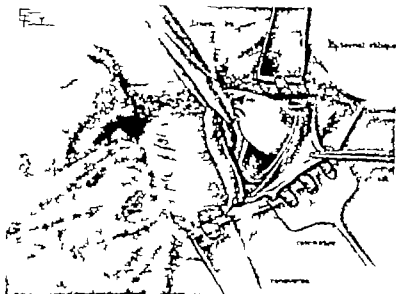


Fig. 1 (Judd): Operation complete on one side. Aponeurosis of the external oblique on inner sides of the incisions, is included in the stitches through the rectus, conjoint tendon and internal oblique and is pulled down to Poirart's ligament. Flap of fascia carried over cord lies between the two layers of external oblique fascia.

then, by properly retracting the skin and subcutaneous tissues of either end of the incision the entire inguinal canal of that side will be exposed. The hernia on this side is repaired and then the same retraction is made on the opposite side for the repair of the second hernia. After the operation on the hernia has been completed the superficial tissues are loosely sutured with catgut and the skin closed either by subcutaneous catgut suture or through-and-through horsehair suture. With this incision the exposure of either inguinal canal is fully as satisfactory as that obtained when an oblique incision is made directly over the inguinal canal on each side. The entire length of the transverse incision is often not more than that of the oblique incision, as it is ordinarily made for the repair of single inguinal hernia. The bleeding is very slight, as a rule only the small branches of the superficial epigastric vessels come into consideration. One of the principal advantages of this method is seen in those patients who have worn trusses which have compressed and hardened the region or possibly has blistered and broken the skin. The injured areas, in such cases, are low and beneath the inguinal canals and are not encountered when the transverse incision is used. The location of inguinal hernia is such as to make it difficult to prepare them for operation and it sometimes happens, after operations, that the lower end of the incision, either through infection or through an accumulation of serum at this point, does not heal well. This com-

plication is more frequently seen when two oblique incisions have been used for the repair of double hernia and is probably due to a greater interference with the circulation and to more extensive traumatism of the tissues in the double hernia. The transverse incision heals well and entirely obviates this possibility. This method may be applied in any case where it is desired to expose both canals or testicles. It will be found very useful in cases of double hydrocele and, as has been described by Peterson, is a useful incision in the Alexander operation for shortening the round ligaments.

Barker: The Treatment of Large Hernia. *Lancet*, Lond., 1913, cxxxiv, 10. By Surg., Gynec. & Obst.

The author says it is not the actual size of the tumor that is the detacle, but it is the fact that these voluminous hernia are not going to be taken away but have to be returned into the cavity of the abdomen. If a very large hernia containing much omentum and other fat is returned into the peritoneum the pressure within is considerably increased and sometimes with very injurious effects. Perhaps the worst of these is interference with the movements of the diaphragm. A patient affected by the conditions just alluded to should be put to bed for some weeks on strict regimen to reduce the amount of fat and fluids in the tissues, and daily attempts should be made to return and retain the hernia within the abdomen. If the mass can be reduced and cause no embarrassment to respiration, one

element of danger is eliminated. The restricted diet, and, before all, the denial of fluids, may be reinforced by purgatives regularly to avoid the bowels and further reduce the volume of the abdominal contents. Acute bronchitis, marked albuminuria, much sugar in the urine contra-indicates immediate operation, except in cases of urgency. The author does not believe, apart from the conditions referred to, that age, unless it be very advanced, affects the question of operation necessarily. The possibility of extensive adhesions in large hernia has also to be carefully considered. When the omentum is adherent to the sac, the latter is removed with all the adherent omentum. This saves much time and bleeding.

The preparation of the patient has the most important bearing on the operative measures which can be adopted for these large hernia. If the protrusion can be reduced into the abdomen, every effort should be made to retain it there in order that all the viscera shall become accustomed to its presence once more and especially the diaphragm. He advises that large hernia about the groin require daily washing with the hottest water that can be borne and often astringent antiseptic lotions for a long time. Finally the night and day before operation there is no better antiseptic application than 5 per cent solution of iodine in ethylene dichloride painted freely over the field of operation. For anesthesia he seems to prefer spinal analgesia. If considers Bassini operation carried out with every attention to detail the best method when done with care. A large sac need not be dissected formally out of the scrotum. If there is tendency to ooze, drain should be introduced for twenty-four hours as hematomata in this region may be troublesome. The use of silver filigree is unnecessary in the large majority of cases.

DOUGLAS C. BURTON

Stutzer: The Function of the Great Omentum
(Zur Frage der Funktion des grossen Netzes). *Med. Rundschau*, St. Petersburg, 9, 3, 1914, 70.
By Zentralbl. f. d. ges. Chir. u. Gynäkol.

In accordance with Oppel's opinion that the omentum should be resected as a matter of principle because it is a refuge and breeding place for bacteria, and Hensler's opinion that it is, like the appendix, rudimentary organ Stutzer cites Ranvier's opinion that it is to be compared to a large lymph gland. The investigations of other authors show () that animals without an omentum succumbed to peritoneal infections which were borne without difficulty by other animals with omenta (Roger) () that the intraperitoneal lethal source of infection is many times larger than the intracranial (Ascher and Chavennas). Althan emphasizes the plastic as well as the phagocytic properties of the omentum. Broermann calls the omentum a bacteria catcher. Heger and Gübert showed radiographically the reabsorption of bismuth through the omentum. Koch obtained the same results by injecting India ink.

The author repeated these experiments by inject-

ing into the peritoneal cavity of laboratory animals suspensions of colon and anthrax bacilli. India ink and after a definite time noting the findings in the omentum. The collective experiments show that foreign bodies are taken up first by the macrophages and then by the epithelial cells of the omentum and by the macrophages which take up the macrophages. After a short time the foreign bodies are found in the lymph glands and nodes of the omentum, and intense irritation, as by pus bacilli, the omentum encloses the focus with plastic exudate. Laboratory animals without omenta react to the same stimuli with a hemorrhagic exudate and fibrous deposit. In these experiments deposits were, moreover, observed in the mediastinal glands. According to Stutzer the mediastinal glands, the lateral ligaments of the uterus, and the peritoneum are respectively the next most important factors in protecting the animal against peritoneal infection. The omentum is first.

VON REYHER.

Stanton: Diverticulitis. *Boston M. & S. J.*, 9, 3, 1914, 343.
By Surg., Gynec. & Obst.

Meckel is a true congenital diverticulum, embracing all the coats of the intestine and is due to the persistence of the omphalo-mesenteric duct. The autopsy records of Johns Hopkins Hospital show one case of this in every seventy-two. It is usually attached to the ileum near the cecum and consequently in its symptoms it resembles appendicitis. Its most alarming complications are obstruction, strangulation and adhesions of the diverticulum to bowel or abdominal wall. The author's case was that of a child six weeks old and poorly developed vomiting as frequent, and constipation the rule. New growth tuberculous peritonitis malnutrition and chronic duodenal indigestion were some of the diagnoses made by excellent men. The abdomen was distended and flat percussion a fluid wave was present. Peristalsis was visible in the upper abdomen. Tenderness was lacking. At operation was found an enormously distended stomach, duodenum and jejunum—all with hypertrophied walls. The cause was an adherent Meckel's which was freed and removed.

Acquired diverticula are really hernia of the mucous membrane through the muscular coat and are usually found along the mesenteric border of the large intestine, mostly in the sigmoid and very rarely in the rectum. Their cause is obscure. Fleishy masses of ring or just past middle life are the usual victims. Frequently there is accompanying inflammation with mass often thought to be malignant in which hardened collection of feces is frequently found. It is important to have every sigmoid grossly carefully examined before labeling it cancerous.

The symptoms are left-sided appendicitis with severe general pain localizing later in the left. Vomiting is uncommon but tenderness and rise of temperature soon appear and a mass develops in the

left lower quadrant. Stone in the kidney and pus infection must be eliminated. The treatment is surgical except in old people or when the attack is slight. Stanton: four cases were men of thirty, forty-eight, sixty-three and sixty-five respectively. The first had a tender mass on the left and was relieved by operation. The man of sixty-five had a left-sided mass with obstruction which proved to be cancer secondary to diverticulitis; this was removed but the patient died of pneumonia in the third week. The man of forty-eight also had a tender movable mass on the left which finally disappeared; he refused operation. The man of sixty-three had for years attacks of left-sided pain occasionally accompanied by vomiting at about the end of the second day of each attack. Tender mass, which disappears within a few days, can usually be found in the sigmoid. In view of his age and extensive right operation was not advisable.

Nicholson: The Urachus as a Factor in Intestinal Obstruction; with Report of Case. *Lancet-Clark* 19, 3, 418, 285. By Surg. Gyöcs. & Obal.

The author reports the case of a man 34 years of age who entered the hospital with a pulse of 40, temperature of respiration 36, greatly distended abdomen, and complaining of most intense pain about the region of the umbilicus.

An incision just to the right of the median line extending from the point one inch above to four inches below the umbilicus, disclosed a loop of ileum rotated upon itself which was suspended by a cord extending from the umbilicus to the summit of the bladder. After the much discolored bowel had been released, the cord was ligated at its attachment and removed. Patient made an uneventful recovery.

In discussion of the origin of the cord causing the obstruction, it was shown from the studies of embryos and fetuses from six weeks to four months of age by Cuneo and Vea that the allantoic neck, first occluded in the ventral wall of the embryo, becomes disengaged therefrom and protrudes into the abdominal cavity being attached to the anterior wall of the abdomen only by thin membrane. As the result of an arrest of development in the transitory existence of the primitive peritoneum attaching the urachus to the parietal wall the membrane may become attenuated and finally disappear leaving the urachus attached to the extremities, which would explain the origin of the obstruction.

GASTRO-INTESTINAL TRACT

Galliat: A Picture of a Diverticulum of the Stomach without Corresponding Loss of Any Portion of the Stomach Wall (Image diverticulaire de l'estomac ne correspondant pas à une perte de substance de la paroi gastrique). *Bull. et mem. Soc. de chir. de Paris* 9, 3, 224, 1. By Journal de Chirurgie.

In man, 65 years old who for thirty years had had slight stomach trouble and had recently had

severe pain and trouble with swallowing, radioscopic examination showed. An oesophageal pouch characteristic of a carcinoma of the cardia. A diverticulum of the lesser curvature indicating that this region was involved by the neoplasm. A large diverticulum of the greater curvature.

But as a laparotomy to perform gastrostomy showed, this large diverticulum of the greater curvature did not correspond to an ulcer scar, or to new growth. This apparent diverticulum then was due entirely to an abnormal and passing contracture. It should be stated that the diverticulum of the lesser curvature remained fixed, whereas the one in the greater curvature seemed during the radioscopic examination to be affected by the movements of the stomach.

This observation shows that radioscopic examination brings to light many points that could be missed by simple radiography.

Delaunay cited a case in which the radioscope as deceiving. A case which he and Enriquez had diagnosed as duodenal ulcer radiocopy made by Enriquez showed a deep indentation of the greater curvature extending toward the lesser and it remained during the whole examination despite the movements of the stomach, which made the presence of large carcinomas of the stomach seem likely. At operation no change in the stomach was found. Debet performed a gastro-enterostomy and an uneventful recovery followed.

Ricard discussing the case of Guilloz, reported a case in which there was perfect picture of an hour-glass stomach, the stomach being completely divided into two parts connected by narrow canal. This radiograph led to the making of a series of radioscopies during the next few years in all of which exactly the same static affairs was found. Its constant occurrence during three years made it seem to be a fixed lesion. However, at operation it was found to be a contracture of the middle of the stomach at the sight of an old, small, healed ulcer situated in the lesser curvature which did not persist under the relaxation of an anasthetic.

While recognizing the immense value of radiocopy and admitting its superiority to simple radiograph it must be granted that pictures of the stomach containing bolus of bismuth must be subject to minor and repeated control and should not be accepted except when interpreted by skilled observers. J. Debove.

Sonne: Callosus Ulcer Involving the Entire Stomach; Excision; with Comments on Complete Loss of the Stomach and the Technique of Stomach Resection (Ulcer callosus gastrici totale; Excision, wobei Besprechungen über den dasenden Verlust des Magens sowie über die Technik der Magenresektion). *Maschen med. Wochenschr.* 9, 3, 12, 890.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Demonstration of an extreme case of contracted stomach reacted in toto. The entire stomach was involved in a callosus ulcer. The Roentgen picture

had shown it as a narrow shadow of about finger breadth, slightly arched and extending from the oesophagus to the region of the pylorus. It had been diagnosed clinically as malignant stenosis of the pylorus. The stomach wall was 1 cm. thick, the submucosa being thickly affected. Carcinoma could not be demonstrated. There had never been any vomiting and blood could not be demonstrated chemically in the stomach contents. The patient bore the operation well and year and half later had gained 25 pounds in weight, from which fact Sasse concludes that the complete loss of the stomach has no bad effect on the state of nutrition. The technique of this operation is as follows: After freeing the greater and lesser curvatures, the stomach was cut off at the pyloric end. Traction was made on the stomach to pull out the cardiac end and the oesophagus. The anastomosis was made in the mesocolon by the peritoneal jejunum drawn through it and sutured to the posterior surface of the duodenum at the stomach. Finally the stomach was severed at the cardiac end and anastomosis completed in the usual way. Sasse recommends this as an exceptionally good technique for this operation.

Kolb: The Permanent Result Obtained with Ligation of the Pylorus with Omentum and Fascia (Ligature duodeno-jejunal bei der Umschneidung des Pylorus mittels Netz und Fascie) *Deutscher Chir. Kong.*

By Zentralbl. f. d. ges. Chir. Gernsberg.

At the Heidelberg (Linn.) the author has practiced ligating the pylorus with otoplastic material (omentum and fascia) after ligating ulcers of the stomach. The duodenal stenosis in place of the unilateral pylorus exclusion method of von Eiselsberg. He treated eighteen cases, three with omentum and fifteen with fascia. The first nine cases died but nine months and are alone considered. All nine cases were examined lately. By means of bougie examinations it was found that the pylorus was closed in all and that the stomach emptied itself within one hour through the gastro-enterostomy opening. The patients looked well, had gained in weight and felt well. No occult blood could be demonstrated.

The technique of the operation is as follows: The strips of fascia are at least 3 cm. wide, not too thin and free of all fat and muscle. He now uses only the fascia lata. The pylorus should not be tied too tight, just sufficient to occlude the duodenal lumen. Such a strip does not relax if it is sutured to the serosa with fine silk or catgut, as was demonstrated in the re-examined cases. Parleyvechov also advises this. The author fastens one end of the fascia to the serosa by means of sutures and then draws the strip through and fastens the other end, placing a few anchor sutures to prevent it from moving. The fascia is not knotted. The ideal method however is the unilateral pylorus exclusion of von Eiselsberg. The disadvantages (more serious and time-consuming)

ing) make a more rapid method desirable in weak and anemic patients. The author believes, however, that the autoplasmic ligation of the pylorus deserves the preference over the von Eiselsberg method. In those cases in which no fascia is available the ligation can be carried out with strips of omentum just as successfully.

Köttner: Duodenal Ulcer (Ulcus duodeni) *Deutscher Chir. Kong.*

By Zentralbl. f. d. ges. Chir. u. Gernsberg.

The author discusses the most important points in the pathology and treatment of duodenal ulcer based on his own experience and that of eighty other surgeons treating a total of eight hundred cases. The apparent discrepancy between the German and Anglo-American figures is explainable when conditions are considered. In Germany there are a large number of cases in few hands, while in the Anglo-American countries the operation is performed only in the advanced stage. The predisposing factors of an acute duodenal ulcer are laparotomy, appendicitis, septic infections, etc. According to the author experience amputations may be added to the list. They particularly predispose to the chronic ulcer. Of the symptomatology the hæmorrhage is the most important as Moynihan emphasizes. The burning pain is of equal significance to the late pain, or night pain, and with the periodicty. The pains are due to pylorospasm and are not particularly pathognomonic. They can occur in ulcers, enteritis and in carcinoma. More constant is the periodicity as a result of the healing and recurrence. The absence of occult blood in the interval is important. Something has lately been gained in the objective findings. Hyperchlorhydria is not constant and not very frequent. Of more importance is hypersecretion, which may be present even in the empty stomach. Achlorhydria may occur. Motility is intermittent insufficiency, and transiently twelve-hour retention (Kamp). Occult blood may be absent, even in the florid stage. Spontaneous and pressure pain is localized in the epigastrium usually to the right of the median line but more frequently the sensitiveness is diffuse.

Only the ulcers in the anterior wall can be seen during laparotomy, therefore it is necessary to open the duodenum (Wilms). Complications are frequent so that Simmons finds a mortality of 70 per cent, due to perforation and hæmorrhage. Ulcus ventriculi is frequently accidentally found as a boundary line between stomach and duodenum, the vein of Mayo is sufficient for practical purposes. The differentiation of gastric ulcer from duodenal ulcer is important from a prognostic point of view. There is slight tendency to cure a healed duodenal ulcer is rare seen. The treatment must be surgical so long as the results of internal therapy are doubtful. Indirect surgical treatment is the more frequent procedure, as resection is highly dangerous and possibly only ulcers of the anterior wall. Of the indirect methods, gastro-enterostomy in absence of

ing upon a marked and long standing obstruction, which because of the small quantity and liquid state of the duodenal content is of slow progress. Antiperistalsis is seen at times. When stenosis is complete, finger-like projection is seen extending from the pylorus to the point of tenderness.

E. K. ARTHURSON

Rowlands, J. *Jejunal and Gastro-Jejunal Ulcers.*
Gast. Hosp. Gaz. 9, 3, xviii, 140.
 By Surg., Gynec. & Obst.

A general discussion of the etiology of the conditions under consideration is given together with description of the treatment and report of two cases. Jejunal and gastro-jejunal ulcers follow a certain percentage of gastro-enterostomies but it is significant that it has never been recorded as following gastro-enterostomy which was performed for malignant disease. The apparent immunity which these cachectic patients seem to enjoy is probably due to the diminution of the force of free hydrochloric acid in their gastric juice. It is estimated that this complication occurs in about 5% of the cases where gastro-enterostomies are performed for non-malignant disease. The condition is found especially after anterior gastro-enterostomy and, above all after antero-anastomosis, the Y type of operation in both of which the acid gastric juice unaltered with the bile or pancreatic juice comes in contact with the mucous membrane of the jejunum.

The uncertain causes of the original ulcer of the stomach or duodenum may play some part in the new ulceration. Some of the most likely are chronic septic absorption from an inflamed appendix or gall bladder or the ingestion of infective material from a septic mouth.

The symptoms usually appear after a considerable period of apparent good health following the operation. The first thing complained of is indigestion, with symptoms simulating those of duodenal ulcer except that the pain which the patient usually describes as burning is usually situated to the left of the middle line above the level of the umbilicus. Further its relation to food-taking is far less striking although it is usually aggravated by solid food so that the patient limits his diet mainly to liquids and soft foods. Sometimes the pain is relieved by food but it usually comes again in an hour or two. Usually there are nausea and loss of appetite and occasionally vomiting and even hematemesis, with signs of dilatation of the stomach. There is often tenderness and rigidity to the left of the umbilicus and there may be an induration here due to plastic peritonitis, with adhesion to the parietes and even cutaneous fistula may form. At any time signs of perforative peritonitis may develop. Sometimes the patient has been perfectly well following his operation and the first sign of trouble is a very acute pain in the abdomen with the rapid development of signs of perforative peritonitis.

The treatment of these ulcers should be medical

until it has been shown that this is of no avail. Medical treatment consists mainly of rest in bed, feeding of bland albuminous and fatty foods, and the neutralizing of the gastric juice with alkalis.

Radical operation is usually undertaken after medical treatment has proven of no avail. Finney's method of enlarging the pylorus may be used to great advantage in some of the cases. It provides free drainage of the stomach cuts down the acidity of the gastric juice and allows the patient to eat more.

A more extensive radical procedure consists in the separation of the intestinal anastomosis, the closure of all the openings and the formation of an entirely new and improved gastro-jejunoanastomosis. This is probably the best procedure of the conditions of the patient will allow of its execution. All operative procedures, however, should be followed up by careful medical treatment, in order to prevent recurrence of the condition. JAMES H. SKILES

Ladd, *Progress in the Diagnosis and Treatment of Intussusception.* *Boston M. & S. J.* 9, 3, div. 1, 542.
 By Surg., Gynec. & Obst.

The author states that, now the controversy as to whether intussusception should be treated by inflation and irrigation, or by immediate operation is over and timely surgery is considered the best treatment, it is interesting to see whether any reduction in mortality has taken place and whether we have at our disposal any means for still further reducing it. In 1908 Stone reported eight patients operated with one recovery in the Children's Hospital for the previous five years and also eight patients operated in the Infant Hospital with one recovery in the previous ten years. Codman, in the same year reported ten patients operated in the Massachusetts General Hospital in the previous ten years with one operative recovery. This patient later died from hernia operation. These cases give a mortality of over 90 per cent. In general hospitals the surgeons have an opportunity of operating only once or twice in ten years and consequently lack uniformity of method. This suggests the advisability of having these cases sent to a hospital devoted to the care of children or having surgeons especially qualified for the work of taking care of them in more general hospitals.

The cases reviewed were operated by Stone and the author. Each had ten cases in the five years since 1908. Six of Stone's cases recovered while five of the author's lived. In this series there was a mortality of 45 per cent, which is just half of that reported from the three hospitals mentioned above five years ago. This is encouraging and the author believes the results have been made possible by the co-operation of the pediatrician, the general practitioner and the surgeon. With earlier diagnosis and operation, intussusception will be removed from the list of diseases of high mortality.

The following facts from this series of cases are interesting. The average age of Stone's six cases

which recovered was 1 year, average duration of symptoms in four (duration not mentioned in two) was thirty six hours. The average age of the five patients operated by the author was seven months and average duration of symptoms was forty-eight hours. Of the patients that died the duration of the symptoms was nearly the same. No case was lost where the duration of symptoms was less than forty-eight hours and with no exception no case with symptoms lasting over forty-eight hours was saved. The deduction to be drawn is that one must get cases within forty-eight hours and preferably within thirty six or twenty-four hours.

The author draws attention to the fact that the description of intussusception given in most text books is that of patient who has been sick for about two days. It is far more useful to the practitioner to remember that infants in the early stages of intussusception between paroxysms of colic pain are apt to look perfectly well and have no elevation of pulse or temperature and that the mother's story of a baby who has been well and suddenly taken with an attack of abdominal pain, associated with drawing up of the legs and followed by vomiting, is sufficient reason for making thorough abdominal examination even if the baby looks well. At this period, before any distention has taken place, a small mass of resistance may be felt any place along the course of the colon but in this early stage is most likely to be felt in the cecum or between there and the middle of the transverse colon. The next sign which presents itself is blood in the stool. The presence of blood, without much feces and mucus and the frequent movements characteristic of infectious diarrhea, is practically pathognomonic of intussusception. Any patient passing blood as described should be taken to the surgeon at once whether tumor is felt or not. Later the classical symptoms appear the treatment becomes difficult and the prognosis grave.

Lately the author has been using bismuth paste injected into the lower bowel to aid in the early diagnosis of these cases. There are several X-ray plates illustrating the article. The bismuth travels up the colon readily and reaches the intussusception. In these cases the shadow cast is suddenly and sharply cut off at the upper border. It has only been tried in three cases as yet but the results tend to show that it may be useful in the early diagnosis of doubtful cases.

EDWARD L. CORRELL

Green, Kellogg and Harris. Spastic Paralytic Ileus. *Boston M & S J* 9, 3, 1914, 580.
By Surg., Gynec. & Obst.

The article deals with reports of three cases of spastic paralytic ileus following laparotomy. The first followed a bilateral salpingectomy and appendectomy. The cecum was difficult to deliver into the median incision and considerable traction was made in the ileum near the cecum during the appendectomy. The patient died 8 hours after operation with symptoms of acute dilatation of the

stomach, the distention beginning in the upper abdomen. Partial autopsy through the incision showed an annular constriction of the ileum 4 inches from the cecum where the gut was flattened, dull, slightly reddened and contracted. Its walls were in spasm. The gut above and the stomach were enormously distended. The distal four inches of ileum, the cecum and the large intestine were flat, with no signs of peritonitis or hemorrhage.

The second case was laparotomy for adherent retroversion and salpingitis in a patient who had had previous laparotomy for old pelvic inflammatory disease. In freeing adhesions along the old incision considerable traction in the gut was necessary. This patient died and partial autopsy through the operative wound revealed spastic annular constriction 3/4 inches long where the gut had been separated along the original incision. No signs of peritonitis were present. The symptoms were the same as in the first case.

The conclusions drawn are: Death as due to intestinal obstruction from a localized tonic contraction of the circular smooth muscle fibres of the small intestine, caused by surgical trauma. From the nature of its pathology which was probably mechanical injury to the plexuses of Auerbach and Meissner the most convenient descriptive term for the condition seemed to be spastic paralytic ileus.

The lesson learned from these cases is the immense importance of avoiding pinching trauma to the bowel during laparotomy. The small intestine seems more liable to the condition than the large, hence in appendectomy traction should never be made on the ileum for the purpose of bringing the cecum into the wound, but only the large intestine should be employed for such necessary traction.

Harris. Report of Case of Fecal Impaction in the Rectum for Fifty-three Days with Recovery. *J Am M Ass* 9, 3, 1914, 712.
By Surg. Gynec. & Obst.

Harris reports a unique case of intestinal obstruction in a man who at the age of 60 had an obstruction due to carcinoma of the sigmoid, relieved after seven days by caecostomy. At 6 he had fecal impaction lasting forty-three days relieved by a ride on a jolting lumber wagon. At 63 fecal impaction lasting fifty-three days was relieved by lavage of the ileum through the artificial anus. He died of acute obstruction from prolapse of the cecum through the caecostomy fistula four years after the establishment of the artificial anus. This patient was seen by Harris in his third attack fifty-three days after his last bowel movement. During the time of fecal impaction the patient passed only gas through the artificial anus and nothing by rectum except small quantity of blood-stained mucus. During the entire time he worked on the farm and to three meals a day his appetite beginning to fail only a day or two before he presented himself for treatment. Harris presents in detail the physical and labo-

boratory findings in this case including X-ray pictures.

Concluding his report he says

Carcinoma may be complicated by contraction of the opening requiring dilatation from time to time, by fecal impaction necessitating irrigation through the artificial anus, and by prolapse of the cecum through the colostomy fistula.

2. Fecal impaction in the ileum in this case was due principally to ingestion of fruit seeds and imperfectly masticated vegetables such as string beans, which became impacted at the ileocecal orifice.

3. Mere fecal accumulation does not cause urgent symptoms as long as the intestinal gases have opportunity to exit. The distention may produce displacement of the liver and stomach without marked interference with their functions.

4. The urine in this case became dark red from elimination of bile pigments and bismut red, red urobilin in the intestine and the urine contained a few hyaline casts, but no albumin.

5. Treatment to be effective must be persevering and should be conducted with full knowledge of the probable existence of stercoral ulceration in greatly distended intestine and of the possibility of separating the bowel from the colon by my opening by any and violence.

6. Prolapse of the cecum through the artificial anus may prove fatal unless skillful surgical attention is promptly available. L. G. DWAX

Patek: A Case of Primary Sarcoma of the Small Intestine (Die Fall von primärem Sarkoma des Dünndarms). *Zentralbl. f. Gynäk.*, 9, 3, 1906, 414.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Sarcoma of the small intestine is more frequent in men than in women. The percentages quoted are 9.8 per cent (Baltzer) 77.5 per cent (Reinwald). The eleven cases reported in the literature, Patek adds one of intestinal sarcoma in a woman who was operated upon.

The patient, 40 years old, previously well, took sick three weeks before admission. She had intermittent attacks of severe pain in the right iliac region. Little importance was attached to these attacks even after the abdomen showed enlargement and increased resistance. Fever and vomiting were absent, but there was marked constipation. Pains subsided at times, only to recur in more aggravated form. Quit emaciated on admission, abdomen everywhere soft, with moderate tenderness in right hypochondrium, in umbilical region and little to the right. Hard movable tumor the size of a fist, irregular with rough nodular surface not tender but dull on percussion. Per vaginam the uterus was small and adnexa free. A tumor was apparently adherent to right appendage by band of adhesions. Diagnosis: ovarian cyst with twisted pedicle, or intestinal tumor.

Median laparotomy revealed large bluish tumor, covered by omentum. Little to the right and behind the uterus, so that for moment it gave the impres-

sion of fetal pregnancy. It was difficult to separate the tumor from transverse colon, ileum, and jejunum. Tumor was ruptured and discharged reddish brown fluid, and granular masses originated from jejunum, wall of which contained a nodule the size of hazel-nut. Mesentery thickened and infiltrated at its intestinal attachment. Enlargement into abdominal cavity occurred from primary nodule in jejunum, size largely dependent on hemorrhage which had partially organized. Tumor itself was flaccid and friable. Two engorged vessels, the size of a goose-quill extended from tumor to intestine. The gut was resected 10 cm. on either side of tumor and lateral anastomosis was done. Lymph glands on both sides of spine were large and infiltrated. Perfect union. Microscopic examination: Large spindle-celled sarcoma with profuse hemorrhage. Section under the bowel resembled fibrosarcoma with connective tissue similar to smooth muscle fibre. Tumor apparently originated from muscularis of the bowel.

Some authors hold that sarcoma of the small intestine does not produce symptoms of stenosis or obstruction and use this to differentiate it from carcinoma. Others contend that in half the cases these symptoms do occur. Increased tenderness is said to be diagnostic of appendicitis. In this particular case there was only slight tenderness, but severe attacks of pain and persistent constipation. When the patient reported seven months after operation there were no signs of relapse. Tumor.

Hartmann: Vegetative Adenomata of the Superior Portion of the Small Intestine (Simulating Pyloric Stenosis) (Adénomes végétants de la partie supérieure de l'intestin grêle simulant la sténose pylorique). *Presse med.*, Par. 9, 3, 1914.
By Journal de Chirurgie.

Hartmann has had an opportunity to observe and operate upon two cases of polyp of the duodenum. These are of interest because they are very unusual and in each the tumor had produced a gastric stricture which simulated the stenosis caused by ulcer.

Case. A woman, 40 years of age, without a preceding gastric symptoms was seized with epigastric pain, vomiting and diarrhea. She was treated for ulcer of the stomach but the pains continued the epigastrium became distended and she experienced feeling of suffocation with eructations. Examination revealed the presence of considerable residual fluid in the dilated stomach. At operation,

October 29, the pylorus was found to be normal and the first part of duodenum dilated. In the second part, soft tumor the size of a turkey egg was found lifting the wall but not altering it. In the first part of the jejunum there was double invagination ascending and descending which was reduced with difficulty. Gastro-enterostomy was performed, the second part of the duodenum was incised longitudinally and within it a men was found soft lobulated tumor attached by a pedicle, one inch in diameter to the postero-internal wall of

the intestine. The mucous membrane was locked around the pedicle which was then cut, three arteries ligated, and the wound sutured with silk. The duodenum was closed and recovery uneventful.

Case 2. This patient was 5 years old. For three years there had been pains in epigastrium beginning two to three hours after eating and continuing for several hours, when they ceased gradually or suddenly after vomiting. The patient became very thin, and the abdomen was distended. Examination revealed besides the above features, gastric splashing and at times peristaltic waves. In several attacks an ovoid mass was felt in the left flank which could be pushed up under the ribs but descended of gain immediately. There was considerable gastric stasis. The gastric fluid obtained in the morning contained bile. At operation June 8,

9 the stomach was found to be dilated, but otherwise normal, and the duodenum dilated. Immediately distal to the duodeno-jejunal junction was a mass of twisted coils of small intestine. On untwisting these, the thor found two invaginations of the intestine which were easily freed. Proximal to the site of the higher invagination, a little above the duodeno-jejunal junction, a tumor was palpable within the intestine. The bowel was incised and tumor studded with nipple-like projections, was revealed almost filling the cavity. The wall was cut the pedicle excised and the opening then sutured. Recovery was uneventful. In October 9 the patient ate and digested well without experiencing any discomfort. Microscopic examination of the tumor revealed an adenoma as in case one.

In these cases, besides the symptoms simulating pyloric stenosis, the occurrence of invagination is worthy of note. The invagination was apparently not caused by the migration of the polyp during the intestinal wall after it. The fixity of the intestine to the site of the tumor precludes such an explanation. The cause was rather perversion of the muscular action comparable to the observations of Peyer and Brunner who found temporary invaginations in animals as result of irritation of the intestine. J. Dawson.

Murphy Contraction of Intestinal Anastomosis Opening with Extensive Abdominal Adhesions; Cecal Prolapse. *Surgical Clinics of John B. Murphy* 9, 3, 11, N. 2. By Surg. Gynec. & Obst.

A man of 40 was admitted on account of continuous abdominal distention and discomfort though not much pain, he also had cecal stasis. The history dated back five or six years when the appendix was removed. Nine laparotomies were performed in the previous four years, most of them for relief of adhesions.

At operation the intestines were found matted together and enormously dilated. The anastomosis between the ileum and the descending colon was contracted down to such a small diameter that considerable peristaltic action of the bowel was nec-

essary to force its contents through the opening. The result was hypertrophy of the bowel and distention of the intestines. The large intestine below the anastomosis was not materially distended. The large bowel proximal to anastomosis was not dilated.

The ileum had been divided close to the colon and the end of the bowel was closed. About 4 inches from the proximal end of the ileum it was anastomosed laterally with the descending colon, just below the splenic flexure. The anastomotic opening had contracted down to almost the size of a lead-pencil. The portion distal to the anastomosis was very much dilated. The catheter through which he irrigated his bowel passed down into the caecum. When the proximal end of the ileum was swung from the right to the left side the adhesions on the right side that were freed before had become re-established, so there was great tension between the anastomosis and the adhesions of the ileum in the right iliac fossa. Further the mesentery was not approximated to the posterior wall of the abdominal peritoneum to prevent the formation of an open loop. Through this open loop large portion of the small intestine had passed, and compressed the ileum which passed across the pelvis from the right side of the small intestine to the large intestine to which it was approximated. This spread out as a fan and produced retention by compression as well as retention by stenosis of the opening.

The opening present was enlarged, doing typical suture operation. The opening in the caecum as allowed to close.

The operation lasted nearly three hours, but the patient left the table in splendid condition. The following day he had a normal movement, the first in two years, and the bowels continued to move naturally. The tube was removed on fifth day, primary healing. At time of report the fistulous opening had almost closed. The patient's condition was splendid, and he was gaining in weight steadily. L. J. McKeown.

Cornell Etiology of Lane's Kink, Jackson's Membrane, and Cecum Mobile. *Surg. Gynec. & Obst.* 9, 3, 271, 222. By Surg. Gynec. & Obst.

The etiology of this condition is divided into inflammatory and non-inflammatory conditions and attention is drawn to the difficulty in differentiating between them. The inflammatory condition may follow or be independent of the kink or membrane. The author considers non-inflammatory factors as they offer rational explanation for the typical cases. He considers the question as to whether these conditions are acquired or congenital and discusses the views of Lane, Martin and Mayo. He advances a theory in which he considers the condition to be due to imperfect development. In support of this theory he mentions the contributions of Flint, Gray and Anderson.

After reviewing the normal, most complicated embryological maneuver usually termed rotation

of the cecum, attention is drawn to the fact that this so-called rotation consists in three definite elements, namely migration, rotation and fixation. Each of these maneuvers is described in detail and following this is given the descriptions of the possible anomalies of the three conditions which may account for the pathological entities under discussion. As to the primary causes of these various abnormal or defective developments we are as yet entirely ignorant. A definite understanding as to whether these conditions are due to inflammatory or developmental condition is of the utmost importance from the standpoint of pathological treatment.

The author comes to the following conclusions: (1) Anomalous development offers a rational explanation to these conditions. (2) Coincident or resultant inflammation may cause confusion. (3) Describing the embryological changes in the ileocecal region under the single term rotation likewise causes confusion. (4) Such changes are migration, rotation, and fixation, one or more of which may be imperfect. (5) The Jackson or pericolic membrane may be due to excessive rotation, delayed migration, or early or anomalous fixation. (6) The Lane kink may be due to excessive or anomalous fixation. (7) The cecum mobile is due to an absence of fixation.

EDWARD L. CORNELL.

Eastman The Foral Peritoneal Folds of Jonnesco Treves, and Reid, and Their Probable Relationship to Jackson's Membran and Lane Kink. *Surg. Gynec. & Obst.* 9, 3, xvi, 341.
By Surg. Gynec. & Obst.

There is a striking similarity between the foral peritoneal fold described by Jonnesco and Juvana and designated by them the parietocolic fold and the adult peritoneal anomaly described by Jackson as membranous pericolic, and generally known as Jackson membrane. There is probably also causal relationship between the bloodless fold described by Treves and a pocket-like, anomalous peritoneal reflection which is not rare in the adult, and which passes from the mural peritoneum upon the right side quite low down, extending upward and inward over the caput coli and vermiform appendix, to be attached to the last two or three inches of the ileum and the peritoneum of the caput coli. It forms the boundary of a precolic fossa in which the cecal head and the appendix may rest as in a pocket. It is likely that in not rare instances during operations for appendicitis the caput coli with the appendix are sheathed out of this peritoneal pocket, the peritoneal fold, that is the bloodless fold of Treves, which forms the pocket being looked upon by the operator as an affair of adhesion formation.

Moreover although conceptions of Lane's ileo-pelvic band, the structure which is ascribed an important part in the causation of Lane's kink are somewhat varying, it may be well in discussing the

nature and origin of this band to recall that Reid has described under the name genito-mesenteric fold a rather common foral fold of peritoneum which passes from the terminal portion of the ileum into the pelvis. Concerning this genito-mesenteric fold, which may be found in a surprisingly large percentage of fetuses after the seventh month, or even after birth at term, the question may be fairly raised as to whether it is not related to angulations or gravitations or other deformities of the terminal ileum to which it is attached.

The parietocolic fold of Jonnesco and Juvana in most cases arises from the peritoneum at the left or inner side of the ascending colon, passing over the anterior aspect of the ascending colon in an upward slanting direction. It is attached to the parietal peritoneum at the right of the ascending colon. It may adhere to the anterior and lateral aspects of the colon. Reid ascribes to this foral fold practically the same relations as are presented by the parietocolic fold or Jackson membrane when found in the adult.

The fold which was described by Reid has a secondary connection with the ileum and through the peritoneum of the meso-appendix, with the appendix itself a connection which perhaps is responsible for the frequent association of appendicitis and oophoritis. In a case seen by the author by lifting the last part of the ileum upward, a thin fold of peritoneum which was quite loose could readily be seen passing from the mesentery of the last part of the ileum over the brim of the pelvis to the region of the ovary. There was no sharp border of this fold upon the right side. It spread out on the right to a rather narrow fold of Treves. Reid describes this genito-mesenteric fold as passing under the appendix, whereas the fold of Treves passes over the caput coli and appendix. However in author's cases, the inner or left border of the bloodless fold of Treves ended below in the genital gland in the female, and the ovary in the female after birth, and at the intra-abdominal ring in the male at term. The genito-mesenteric fold as it was seen by Reid has not been seen by the author as a separate distinct fold, but rather as the inner prominent edge of the bloodless fold of Treves, passing from the terminal ileum to the genital gland. It is this genito-mesenteric fold of Reid, or the prominent inner border of the fold of Treves, as the case may be, which corresponds in its position and attachment to the ileo-pelvic band of Lane. The relationship between the foral fold and Lane's band is, perhaps, only suppositional, but it seems not unlikely that they are identical.

Concerning the origin of Jonnesco's fold, it may be said that several succeeding stages of its formation indicate that adhesions form between the cecum and parietal peritoneum, while the cecum is still subhepatic. The subsequent descent with torsion or rolling forward on the long axis draws the mural peritoneum over the ascending colon in slanting direction.

Rheindorf: Appendicitis Ex Oxyuris (Die Wurmlarveninfestation ex oxyuris). *Med. Klin.*, 9, 2, 12, 33. By Zentralbl. f. ges. Chir. u. L. Grenzgeb.

Oxyuria may be demonstrated in high percentage of diseased appendices in childhood (in extirpated appendices in almost 50 per cent, in post-mortems 37 per cent). It occurs occasionally in adults. In these investigations the fact is to be emphasized that actual alterations due to the activity of the worms have been found in the extirpated appendices. These changes consist of superficial defects in the recesses of the mucosa. By serial section it can be demonstrated that these defects show transitions to slit-like or even total destructions of the lymphatic apparatus. In the defects and passages the oxyuris is found. Both are produced by the activity of the oxyuris. By careful examination of similar changes the percentage of so-called normal ppendices removed will be considerably reduced. In these appendices, secondary inflammatory changes (a superficial or deeper character may be found. Contrary to Aschoff's views these findings render probable a primary ulcerative stage of ppendicitis due to oxyuria. One can also speak of an appendicitis catarrhalis superficialis in the pathologic-anatomic sense. Oxyuris carriers may therefore from time to time suffer from attacks of appendicitis. Cases without fever in which an ppendectomy is made will show simple defects without inflammatory processes plus diffuse superficial inflammation. Even when the mucosa is undermined to large extent, all signs of the disease may be absent. Perhaps herein lies the explanation for the rapid onset of peritonitis in children, who attend school perfectly well in the morning, play on the streets at noon and in the evening develop perforative peritonitis. Possibly also it may explain the suppurative or sero-sanguinous peritonitis of small girls, thought to be due to disease of the adnexa. Whenever alterations are found without inflammation we must assume that the tissues have become accustomed to the presence of the parasite. Because appendicitis in children occurs frequently after infectious diseases, it might be thought that the weakening of the youthful organism by the infective process allows the parasite to continue its epithelium-destroying action, which then predisposes to secondary infection with micro-organisms. Treatment directed against the worm may in such cases be a double-edged sword. Still, oxyuriasis should be fought by rational therapy in practice.

Zorn Vienne.

Jackson: Retrocaecal Appendicitis. *J. Am. M. Ass.*, 1913, 12, 285. By Surg. Gynec. & Obst.

Jackson agrees with Deaver in calling retrocaecal appendicitis "bad type of appendicitis," on account of its serious complications and sequelae. He divides retrocaecal appendices into four rather separate anatomic sub-varieties, as follows:

The appendix, possessing its usual mesentery, is distinctive only in the fact that it runs upward along the outer side of the colon, which overhangs

and confines it in the limited peritoneal space external to the colon.

2. In another type the appendix runs upward external to the colon under cover of the peritoneum of the posterior parietes, which forms its investment usually incomplete on its posterior circumference, and even though complete not furnishing a mesentery proper.

3. Again we have found the appendix running up along the external wall of the colon itself and invested by its proper tunica and likewise without mesentery.

4. In the fourth type the appendix runs upward directly behind the colon, beneath which it is buried in connective tissue entirely and has no direct peritoneal investment whatsoever.

The occurrence of an extracolic peritonitis following a retrocaecal appendicitis may by upward extension along the outer side of the colon, reach the under surface of the liver and reaching here it may follow around, now forward above the hepatic flexure of the colon beneath the liver and result in a sub-hepatic abscess, or may further invade, more or less extensively the upper peritoneal cavity beneath the liver. More commonly following gravity it reaches the lower fossa behind the liver passes upward between the liver and diaphragm, and results in a subphrenic peritonitis, often terminating in an obscure subphrenic abscess.

Infection may also spread to the cellular and other retroperitoneal tissues and give rise to localized or diffuse cellulitis. In this case the colonic blood vessels may be involved in an infective phlebitis with dissemination to different parts of the body more particularly to the liver.

The symptomatology shows some distinctive features in retrocaecal appendicitis according to the author. The initial epigastric pain and vomiting common to the ordinary variety is present as a rule without any noticeable variation. The local pain and tenderness, in this particular variety is best elicited just above the crest of the ilium posteriorly. Abdominal or rectus rigidity so significant in the intraperitoneal appendix here is usually of transitory presence. Abdominal distension due to involvement of small intestines in peritonitis in ordinary cases is here usually very moderate or entirely lacking. The tumor if found at all, will be outward and backward, and often present only in the loin. With the subsidence of local signs the temperature often remains at from 101 to 102 F and the pulse is increased in corresponding septic ratio.

Jackson advocates early operation before the more serious complications manifest themselves. A posterior incision in the loin has been advocated, but he does not deem it advisable when the appendix is to be removed at the same operation, thing he nearly always does. Posterior loin drainage through the lowest point of the lumbar fossa has lowered his mortality great deal. In conclusion the author states that the one surgical feature for strict observation in retrocaecal ppendicular abscess is posterior lumbar drainage.

R. W. McHARRY.

Fleschl: Prolapse of the Rectum (Prolapso del retto)

Chir. 9, 3, 191, 375.

By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

Among the various explanations for the disease, the author (thinks the cause for the condition to be dependent upon a resistant pelvic floor and a lack of proper function of the lifting apparatus of the rectum. He regards with Rötter as the principal factor of the prolapse an improper condition of the closing apparatus of the rectum. He discusses the physiological act of defecation which consists in the pressure of the colon on the faeces from above, over which the sphincter is stripped with the aid of the levator. In insufficiency of the latter caused by various factors, there is produced first a single and, on persistence of the condition, permanent prolapse. The method of operation which the author has devised is based on this theory.

It consists in an incision of the skin in the shape of an equilateral triangle 7 cm. on each side on both sides of the rectum to produce thorough scar formation. The ligaments between the levator and sphincter are severed, whereby the anal ring descends while the levator rises 6 cm. Next muscle bundle 1 cm. long and 3 cm. thick, of the gluteus maximus on both sides is separated from the sacral bones, which is turned in such a manner that it runs around the anal opening and is fixed with three catgut sutures anteriorly to the ligamentum arcuatum. Over this the triangular skin defects are closed. In this manner the author obtains functional separation of the sphincter and levator and a fortification of the perineal floor. Bonn.

Skinners: Fluoroscopy of the Gastro-Intestinal Canal. Lancet-Chir. 913, 415, 34.

By Surg., Gynec. & Obst.

To facilitate the examination the author uses a triple bismuth meal, the first given 4 hours, the second 6 hours, and the third immediately preceding his examination. In this way almost the entire tract is filled up with bismuth and he can ascertain the topography, the peristalsis and mobility and any defects in the entire gastro-intestinal tract as well as the result of operations and mechanical devices which may be employed. For colon examination he prefers the bismuth injection.

Among other things this method assists in the diagnosis of enteropostosis, Lane's kink with associated duodenal kink, the presence of a Jacksonian membrane and a cecum mobile and may disclose physical basis for constipation which persists in spite of the usual treatment. H. A. Porras.

LIVER, PANCREAS, AND SPLEEN**Byrd: Non-Parasitic Cysts of the Liver. Lancet-Chir. 913, 415, 951. By Surg., Gynec. & Obst.**

These cysts may be divided into two classes, i. e., general cystic disease and solitary cysts. General cystic disease is almost constantly associated with cystic disease of the kidneys, and rarely also of the

pancreas, lungs, spleen and brain. Out of eighty five cases collected from the literature Moschcowitz found that the liver was affected alone in only ten. In the slighter forms of the disease the cysts are generally found just beneath the liver capsule, but when the condition is well marked the whole organ is affected and may be enormously enlarged. Microscopically the cysts are found to be lined by

layer of epithelium, which is columnar in the smallest cysts, but as the cavity increases in size the epithelium becomes cubical and finally flattened. The contents of the cysts consist usually in a clear watery fluid but it is sometimes yellowish-brown in color. In an early case, besides the macroscopic cysts one generally finds on microscopic examination a greater number of bile-ducts than are normally present in the liver. The author collected a series of eighty-eight cases, of which two were fatal, seven in newly born children four occurred in the first year and one in the eleventh year. The other seventy-four cases occurred in adults mostly in people over sixty. All the cases in infants were multiple and all were associated with other defects.

The following is a brief summary of other theories which have been brought forward to explain this disease.

That the cysts are formed by degeneration of liver cells.

That the cysts are due to dilatation of normal bile-ducts which have been occluded by inflammatory connective tissue.

3. That the condition is due to an overgrowth of bile-ducts or biliary angioma.

4. That the cysts are tumors, cysto-adenomata of the bile-ducts.

5. That the cysts are formed by tumor formation from embryonic remains.

The condition of general cystic disease is, of course, not amenable to treatment and is more of pathological than of clinical interest. In some cases, however the largest of the cysts have been dealt with surgically under the impression that a solitary cyst was present. Solitary cysts of the liver on the other hand, are of considerable clinical interest, as they often produce well-marked symptoms and are usually amenable to surgical treatment. Although the term solitary cyst is a convenient one, it will be found that in many cases of apparently solitary cyst the liver tissue adjacent to the cyst wall contains potential cysts in the shape of acini lined by epithelium and in some cases actually small cysts in addition. Solitary cysts may occur in children, but most of the reported cases have occurred in adults. The author abstracts many cases selected from the literature on the subject and gives in detail a report of his own case, which was undoubtedly one of those rare cases of hepatic (presumably solitary) cysts of non-parasitic origin.

The most striking point in the clinical features of solitary non-parasitic cysts of the liver is the great preponderance of the condition in the female sex.

Of the thirty-four cases collected in this paper twenty-four were females, four are stated to have occurred in males, while the sex is not stated in six, i. e., out of twenty-eight cases in which the sex is stated nearly 86 per cent were in females. Age of the patients is stated in twenty-six. The youngest was Shaw and Eiling case, which was 8 months old. Miller's case was operated on at the age of three, but the abdomen had been noticed to be enlarged at birth. The oldest was 75.

As regards the clinical signs and symptoms, pain does not appear to be a very marked feature. Dyspepsia and vomiting occurred in several cases. Jaundice occurred in only one case. An abdominal swelling, in most cases diagnosed as cyst, is present in all of them. Fluctuation was generally readily obtained. Enlarged superficial abdominal veins were not noted in any case except his was.

Prognosis If curable, the prognosis of non-parasitic cysts of the liver is not favorable. That of general cystic disease is, of course, very bad especially if associated with cystic kidneys.

Simple puncture should not be performed. Of the cases collected in this paper and in which surgical treatment depicted recovery occurred in twenty-three.

DAVID C. HAZEN

Delbet: Angioma of the Anterior Surface of the Liver; Removal After Hepatic Resection.
C. R. (Angiome du bord antérieur du foie; extirpation après résection hépatique partielle). *Par* le Dr. J. Delbet. *Revue Médicale de la Suisse Romande*, 1910, 34, 1, 1-10.

A man, 50 years old, had in her epigastrium a tumor mass tending into the abdominal cavity which was about the size of an orange had nodular surface as movable transversely but had developed quite pedicled. There was no history to account for it. A probable diagnosis of malignant tumor of the stomach was made.

A midline incision was made in the abdomen and enlarged by cutting the right. Delbet found tumor attached to the liver by pedicle the center of which was at the point of attachment of the falciform ligament to the anterior lobe of the liver. The umbilical vein crossed its posterior surface. The falciform ligament and the first three centimeters of the suspensory ligament were dissected free and the pedicle of tumor 6 cm. in diameter was cut after hemorrhoids as secured by tightly tied continuous suture of heavy catgut. The abdomen was closed without drainage. Normal recovery.

The tumor weighed 50 grams, was 1 cm. in breadth, 8 cm. in height and 6 l. thickness. It was bluish violet in color with some grayish white trabeculae on its surface.

On the surfaces made by sectioning the tumor were found cavities filled with black material—apparently coagulated blood. Microscopically the tumor was composed of number of cavities containing normal blood, lined with a continuous endothelium, and embedded in dense fibrous stroma.

It was a simple angioma simulating a cavernous hemangioma.

J. L. ROWS RECTOR.

Bain: Gall-stone Disease; Medical Treatment.
Practitioner, Lond. 9, 3, 20, 1910.

By Surg., Gyroc. & Obst.

It is the author's belief that the primary and essential factor in the treatment of this affection is the rectification of the digestive functions. The administration of drugs is erroneous, as the contents of a normal bladder will dissolve any gall-stone under aseptic conditions. After correcting the digestive errors, the administration of rotopia or other disinfectants is indicated. The lower lactation should be cleaned out thoroughly.

The diet should be kept plain (thin the patient's power of digestion, restricting fats and carbohydrates and prohibiting alcohol. Regular meals, regular hours, and regular exercise are routine measures especially adaptable to this disease. In intestinal indigestion he administers pancreatic preparations combined with sodium sulphocarbonate with bicarbonate and our vomica half an hour before meals. Mental tranquillity should be sought. If there is hyperchlorhydria, olive oil is given. Tenderness over the gall-bladder is treated by mustard-brain fricks. After the digestion is corrected, he administers cholodin and uterotopia.

The author believes that gall-stones can be cured without operation if treated in the early stage. Among the predisposing factors he mentions sedentary habits, stagnation of bile in the gall-bladder, overeating, irregular meals, alcoholism, anxiety and worry, indigestion, constipation, tight lacing, Glénard's disease, cardiac disease, emphysema, granular kidney and pregnancy. Such cases are then taken up in more detail. He states that it is generally believed that the exciting cause is microbial infection, particularly those bacteria which produce acid. Stone formation precedes the inflammatory process, but infection of the bile passages is a necessary factor in the production of gall-stone symptoms.

His method of palpating the gall-bladder is as follows: the right hand is placed immediately beneath the ribs on the right side and the patient told to breathe quietly for minutes or two. The hand sinks deeper with each expiration, so that the presence of tumor or very tender gall-bladder can, as a rule, easily be detected. In the majority of mild cases, tenderness of the gall-bladder cannot be detected in this way. The patient is then asked to sit up and to bend slightly forward. The examiner sits or stands behind the patient and places his right hand under the costal arch with the abdominal muscles completely relaxed he can then palpate the liver quite easily. In neurotic patients, where the statements cannot be depended on, the gall-bladder is approached from the left side and then from the right. The tenderness of the early stage is circumscribed and does not extend below the ribs. When it is detected in a line from the umbilicus to

the costal margin, the peritoneal investment of the gall-bladder has become involved and the affection has passed beyond the initial stage. With the patient sitting, spasm of the diaphragm can also be elicited by asking the patient to take deep breath, when if the gall-bladder is sensitive inspiration will be cut short suddenly. This is a sign rarely absent in advanced cases of cholelithiasis.

EDWARD L. CORNELL.

Kehr: A Review of Two Thousand Operations on the Bile Passages; a Comparison of the Results in the First and Second Thousand (Rückblick auf 2000 Operationen an den Gallenwegen; Das Gegenüberstellung der Erfolge des ersten und zweiten Tausend). Deutscher chir Kong 93. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

In operations on the bile passages, the total mortality is 5.7 per cent. If however the severe complications are excluded (carcinoma, biliary cirrhosis, septic cholangitis) the mortality rate is only 3.4 per cent. If only simple stone cases are considered, the mortality is still lower only 3 per cent. The total mortality rate of the first thousand cases was 6 per cent that of the second thousand 7 per cent and that of his Berlin practice (380 cases) 8 per cent. The reason for the gradual yearly increase in the mortality rate is due to the fact that more severe cases were included. In the first thousand, the severe cases numbered 3.0 per cent in the second thousand 7.8 per cent, and in the 384 Berlin cases, 30 per cent. In the second thousand cases, the mortality rate in pure stone cases was a little lower than that of the first thousand.

Since the use of the T-drain in his second thousand cases, the mortality rate has gone down 3 per cent. Among the first thousand there were 202 cases with a mortality of 5 per cent and in the second thousand, 333 cases with mortality of 2.1 per cent. In the first fifty choledochotomies, the mortality rate was per cent. The total mortality rate corresponds to the percentage of the severe complications plus the two to three per cent mortality of the simple stone cases. No more cases of operative peritonitis develop even if he operates without gloves and mask. There were no wound abscesses of any severe nature, if the panniculus adiposus is not sutured. T-tubings, however are still necessary. Safe anesthetic and the prevention of hemorrhage in icteric patients. The safest procedure against hemorrhage is the early operation of icteric patients.

KATZENBERG.

Sease: Anastomosis Between the Cystic Duct and Duodenum (Über Choledoch-Duodenostomie). Arch f. klin. Chir. 93, 4, 569. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Up to the present time anastomosis between the bile ducts and the intestines have been made only upon absolute indication. Regarding the question as to whether relative indications for an anastomosis exist there are necessary the conditions that drainage

for the bile may be made as natural as possible and that the procedure may not be more complicated than the already extensive primary operations and not made more difficult and dangerous. These demands are filled only by anastomosis of the cystic duct with the duodenum. By it the bile enters the intestine almost in its normal place and so can fulfill its physiologic function in digestion. Its flow is continuous steady and resultant ascending infection of the gall-bladder are impossible. Existing infections are put under a favorable condition for healing by the regular discharge of the bile. On the other hand, using the gall-bladder for anastomosis produces unnatural conditions which, as is seen from the literature, lead in some cases to an infection of the gall-bladder and ascending cholangitis. For the treatment of conditions of infection of the cystic duct and the bile system as it exists in stone in the cystic duct, also in cholangitis without concretions, the method of incision of the gall-duct and cystic duct with subsequent drainage was used universally. The following were given as the reasons for this method of treatment first, elimination of the infected secretion second, removal of the stasis of bile third possibility of local treatment of the gall passages by irrigation fourth, the ability to remove possible remaining stones. Critically examining these points in favor of drainage of the cystic duct, especially when compared with the suggested method of anastomosis of the cystic duct with the duodenum the following conclusions can be drawn. Point one is untenable because the organisms which infect the bile are normally present in the intestine and are, therefore harmless, when the bile is allowed to reach the intestine through the anastomosis. Point two the removal of stasis, the main point is attained more completely by the method suggested than by drainage. Point three is of minor importance because healing is dependent much more upon free drainage of the infection. An irrigation which reaches the gall passages higher up would have to be done under such high pressure that an infection might be driven upward. Irrigation can hardly have an effect on the papilla through a narrowed cystic duct. Point four is of no importance stones which may have been left behind can easily gain entrance to the intestine through the anastomosis, but if it slips past the anastomosis toward the papilla it becomes entirely harmless, because it can produce no stasis of bile. Drainage can offer no advantages but often has disadvantages, as for instance the great loss of bile, which is very important for digestion at the same time there is loss of water to the body the danger of decubitus, with following contraction of the passages, kinking, etc. is present. The long-continued treatment of the wound and all this is done away with by the anastomosis. Not in every case of choledochotomy should an anastomosis be done. An anastomosis is indicated only when the flow of bile is hindered. Naturally the stones are always removed. If the flow of bile through the papilla is entirely unhampered and

If there is no severe infection of the bile passage present primary suture of the cystic duct is performed. To determine the permeability of the papilla sound is not sufficient but physiological salt solution must be injected toward the interior into the cystic duct with a rubber drain and sterile syringe. If the solution flows off freely the primary suture is inserted. If the solution accumulates or runs backward partially there is a hindrance to the outflow of bile and an anastomosis should be made. It is also indicated when there is a possibility of smaller stones higher up in the liver. The technique of the operation is as follows:

The anastomosis is made most easily at the point where the cystic duct runs behind the duodenum. The upper border of the duodenum is separated somewhat and pulled down ward, and an incision is made in the cystic duct longitudinally at this point $\frac{1}{2}$ cm. long. The stones are removed and the bile passages are carefully examined. Opposite the longitudinal incision in the cystic duct there is made a transverse incision in the duodenum. The two openings are united by catgut suture running through the entire thickness of the bile over this is put a silk suture uniting the serosa and going through the muscularis. The duration of the operation is from ten to fifteen minutes. By stroking the duodenum down ward it is so compressed that it is practically empty of contents finally flaccid tampons are introduced.

The author removed the gall bladder in all cases and tied off the cystic duct near its origin cut it off and sewed it over. The anastomosis cannot be used in cases in which there is a severe pericystic cholangitis, because of the general condition of the patient and because the high grade inflammation of the wall of the cystic duct will not permit suture to heal. In this case drainage is more serviceable. Obese patients with rigid bulging thorax with liver highly placed may make an anastomosis difficult procedure. The author has performed eleven anastomoses, the first 4 years ago. The results are lasting and good in all cases. The uterus disappeared rapidly and never returned and fever also was reduced to zero. The two best of nine cases in 11 cases there is secretion of bile for a time without however any after effects, other than protracted healing of the wound. The author gives the following conclusions. The anastomosis of the cystic duct to the duodenum in cases where there is an absolute indication, and when it can be carried out, is the method of choice. Its relative indication, especially in recurring cholangitis with or without stones, and in inflammatory stenosis of the papilla, is far preferable to the drainage of the cystic or hepatic duct, and deserves application in the fullest measure because it is better than any other method in producing a free drainage of bile and guarding against recurrence. Observations have shown that so-called recurrences following radical and properly performed operations do not often depend upon stones which were left behind

or newly formed, but upon stasis and infections following stenosis of the papilla. *Unter-Ecker.*

Remsen: Acute Perforative Cholecystitis Complicated by General Peritonitis. *Surg. Gynec. & Obst.*, 9, 3, xvi, 136. By Surg. Gynec. & Obst.

The rarity of acute perforative cholecystitis associated with general peritonitis is pointed out and its dangers illustrated by two of the author's cases. The symptoms are those of an acute abdominal calamity associated with an area of increased tenderness appearing in the right iliac fossa which in one case led to a tentative diagnosis of acute appendicitis. In both the operation revealed bile-stained fluid, free in the peritoneal cavity and a demonstrable perforation in the gall-bladder. Infection, swelling of the cystic duct mucosa, distention of the gall-bladder, necrosis of the wall due to infection, circulatory disturbances or even direct pressure of calculi are regarded as the cause of the accident. In each the mucous membrane of the gall bladder was swollen, hemorrhagic and gangrene was present in one of the cases. Careful attention to detail and the consideration of the various possibilities in the physiological group of organs in the gall bladder region are insisted upon as determining operation in the early stages. Later benighted peritonitis occurs many of these possibilities may be eliminated and one is brought much closer to the real diagnosis. When in the late stages, the general abdominal signs and symptoms blinket the local features, the importance of careful far-reaching history is shown.

Operative features are discussed and important to note is the very small class of cases showing acute abdominal signs in which bile is found free in the peritoneal cavity yet apparently intact bile tract is presented. In both the author's cases the perforation was used as an opening for the drainage tube.

The responsibility involved in watching an acute gall bladder subside is pointed out and warning given of this rather rare but serious outcome.

Gosses and Desmarest: Cholecystectomy from the Front (De la cholecystectomie d'arrière en avant). *Presse méd. Par.* 9, 3, xvi, 305. By Journal de Chirurgie.

Gosses published, some time ago, a method of performing cholecystectomy by beginning at the cystic duct and working to the bottom of the gall-bladder which he considered the best for ablation of the gall-bladder. In this article, based on a series of thirty-four operations he details especially on the indications and contra-indications of this procedure. The question as he presents it is as follows: Is the course of an operation the necessity for ablation of the gall-bladder may occur either when it alone is involved or in conjunction with opening the common duct. The question then arises as to the best method to be employed.

When there are many dense vascular adhesions,

when the gall bladder is retracted and chronic peritonitis under the liver is very marked, it is often very difficult to remove such a bladder and, if one succeeds, it is by atypical manoeuvres. In these complicated cases experience alone will accomplish the object with more or less ease. But in a case presenting no more than ordinary difficulty the adhesions being separable and the surgeon having access to the inferior surface of the gall-bladder and the cystic duct, he may employ one of three methods of cholecystectomy. First, that of opening and cutting its inferior wall and slitting the cystic duct from one end to the other. This procedure should be adopted only exceptionally. It is of advantage in markedly trophied gall-bladder in order to reach the end of the cystic duct and to permit the removal of an incarcerated stone, but it is really a makeshift. One ought to try to remove the gall bladder and cystic duct completely. The cases where one is compelled to give this up will be more and more rare as one recognizes better the advantages that primary section of the cystic duct offers. The second method, or the classical cholecystectomy consists in separating the gall-bladder from its base towards the cystic duct. It is a good procedure and a natural one since the base of the bladder presents first. But in cholecystectomy by liberation the base first, it is sometimes necessary to find plane of cleavage between the surface of the gall-bladder and the liver dissecting with knife or scissors, and fearing that the gall-bladder may be opened, the surgeon has tendency to penetrate the liver tissue, which leaves the surface of the liver rough and oozing more than after retrograde cholecystectomy. Besides, in separating the bladder from its fundus towards the cystic duct, one meets the ramifications of the arteries. The main stem of the artery will then be cut several times. Finally when the separation has been accomplished, if one pulls strongly on the gall-bladder and cystic duct the hepatic duct is drawn up and bent to an angle so that there is danger of cutting it. Both Kehr and Gossel have had this experience.

The third method consists in beginning at the cystic duct, severing it and primarily separating the gall-bladder from the neck towards the fundus. According to the authors, it is the method of choice when one can easily recognize, isolate, and sever the cystic duct at its entrance into the hepatic duct. In fat men with a wide thoracic base, a liver high up and small gall-bladder the procedure is at times not feasible. In the women, especially if thin with low easily-movable liver if the gall-bladder is not too much trophied, retrograde cholecystectomy becomes very simple procedure. If the authors' technique is mastered this operation is practicable in about two cases in three.

In the thirty-two cases in which the retrograde cholecystectomy has been practised the authors have not encountered single mishap. All have been cured. The operation has been more rapid, more certain, and hemostasis of the pedicle of the

gall-bladder has been accomplished in a thoroughly satisfactory manner. I those suffering from jaundice the hemostasis should be especially careful. Moreover the authors have been able to diminish progressively both the size of the drain and duration of drainage and they hope in many cases to be able to do away with drainage altogether. J. DUNOW.

Deifino A Peripancreatic Cyst Between the Leaves of the Transverse Mesocolon (Über eine peripankreatische zwischen den Blättern des Mesocolon transversum entstandene Cyste). *Dtsch. Ztschr. f. Chir.* 9, 3, 1903, 860.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The cyst was observed in a male 48 years old and had attained the size of an adult head. The diagnosis could be made before the operation from the relationship of the tumor to neighboring organs and from the results of exact examination of the stool and urine, which permitted the assumption of normal function of the pancreas. Histologic examination of the cyst wall showed there was no epithelial lining. Chemical analysis showed the absence of ferment in the cyst content. The author therefore takes for granted that the cyst did not originate in the pancreas and probably was the result of a trauma which the patient had sustained at the age of 7 (marble block falling on his abdomen). The cyst was fastened by suture to the abdominal wall and drained. Cure resulted. It is remarkable that the patient suffered from severe itching of the skin. This, however, disappeared after the operation.

Moskowitz.

Weidman Aberrant Pancreas in the Splenic Capsule. *Assisencal Rev.* 9, 3, 1903, 33.
By Surg., Gynec. & Obst.

This interesting anomaly was first encountered during the microscopic examination of material from an autopsy. The specimen was from a woman years old who had died of general peritonitis following suppurative endometritis. The viscera showed changes due to severe toxemia, but no neoplasm was found.

The pancreatic elements lay in a thick capsule the deepest layers of which consisted of dense connective tissue fibrillae. These fibrillae were more loosely arranged as the surface was approached and contained few nuclei of young type. A serosa could be traced in places, but was masked by the general fibrous exudate. All through the capsule were the foci of pancreatic cells. Duct arrangement was present and typical islands of Langerhans.

To explain the phenomenon, adhesion of pancreas and spleen was suspected. However the microscopic picture did not support this. The only way to account for the finding was by assuming diversion of embryonal pancreatic cells from their accustomed route. In this connection, a guinea pig's spleen was examined in which structures were found strongly suggestive of pancreas.

The variation is not uncommon. Warthel in

1904 collected forty-nine cases. One of the early investigators stated that, in certain animals, the pancreas occurs normally in separate portions. Thus, in the mole, lobules are found distinctly removed from the main organ. In pelobates parts of pancreas are found in the walls of the stomach, and in the salamander in the walls of the jejunum.

To Warthin's cases Weidman was able to add 9 from the literature. Summarizing all these the locations were as follows in 68 cases:

Wall of stomach	17
Wall of duodenum	14
Wall of jejunum	30
Wall of ileum	3
Wall of intestine	
Diverticulum of stomach	1
Diverticulum of jejunum	
Diverticulum of ileum	6
Meckel's diverticulum	4
Umbilical fistula	
Mesenteric fat	
Great omentum	
Ilium of spleen	
Capsule of spleen	

The sizes varied from .4-9 cm., averaging about the size of an almond.

The pancreas starts to develop in the second month of fetal life by projecting its hypoblastic buds into the ventral and dorsal mesenteries. Zenger assumes separate anlage for the pancreas and for each accessory one if present. Warthin thinks that projecting buds of the sprouting pancreas are scared off by surrounding mesoderm and carried to aberrant positions which Adams adds that the cells must be so far differentiated that they are capable of producing only one type of tissue. Weidman thought Warthin theory the most reasonable.

W. G. BUNN.

Morone: Transpancreatic Cholecholethotomy: Clinical and Anatomical Study (La cholodochotomie transpancreatique: étude clinique anatomique). *Reforma med.* 9 3, 1911, 74.

By Journal de Chirurgie.

In operating on the common bile duct the transpancreatic route is least used. Terrier has employed it twice and MacGrand, Kraske, and Tassinari have each used it. It is scarcely mentioned in most monographs on these subjects.

Delezenere, in his report in 1908, considers it as not having much of a future. The author reports the operations of this kind which were performed by Tassinari.

He considers the transpancreatic cholecholethotomy of interest. It is indicated when the local conditions prevent the use of the transduodenal or retroduodenal routes. Finally it facilitates drainage of the common duct.

ANCOULE.

MISCELLANEOUS

Hunter: Coeliotomy in Infancy and Early Childhood. *Am. J. Surg.* 9 3, 1911, 104.
By Surg. Gynec. & Obst.

The author states that the surgeon who operates on children should not overlook the following:

1. While the child may take the anesthetic well for a short period, if the administration be unduly prolonged serious collapse is more common than in adults; hence there should never be permitted the slightest delay in completing any operative steps which may be undertaken, i. e., the operation should be terminated in the shortest time possible consistent with perfect technique and the observance of adequate aseptic precautions.

The child ordinarily withstands the loss of blood badly; hence every possible precaution should be exercised to prevent and control hemorrhage and means should be readily accessible with which to replace such loss, if it becomes advisable or necessary by transfusion or introduction of normal saline solution.

3. The child endures cold badly; hence the extremities should always be amply protected, and if necessary be kept warm by artificial means; care should always be observed that the body be not unnecessarily exposed, and the operation should be performed with the child on a warm-water bed, or at least in a properly heated room.

4. The child bears hunger badly; hence nourishment should not be inadequate before the operation, nor should this feature be neglected thereafter. I. e., requisite feeding must be resumed as soon as permissible after completion of the operation.

He then goes on to quote several writers and reports the results of several men on single cases of abdominal operations in childhood. The latter half of the article is taken up with strong plea for early operations in cases of intussusception.

SURGERY OF THE EXTREMITIES

DISEASES OF THE BONES, JOINTS, ETC.

Pirie: Re-formation of Bone after Resection. *Edinb. M. J.* 9 3, 1911, 346. By Surg. Gynec. & Obst.

The author states that tubercular osteomyelitis of long bones is rare; as out of 8,800 patients exam-

ined by the X-rays in five years in the Dundee Royal Infirmary only 50 were found to be suffering from that disease.

He reports two cases in which 4 inches and 4½ inches respectively were resected from the lower end of the tibia for tuberculous osteomyelitis and above

by successive radiographs the gradual development of new bone. In one case the bone was restored in 5 weeks, and in the second 2 years were required. In the latter case after nearly 2 years without solid bone formation, the patient fell and fractured the new bone when reparative process again started up very actively and the new bone was soon solid enough to bear her weight.

In cases where the upper end of the fibula was resected there was no attempt at re-formation of new bone. He discusses the results of Alacacen experiment in bone regeneration in dogs.

He thinks the best results can be obtained following resection (1) by preserving the periosteum as limiting membrane so the new bone may acquire normal shape (2) by keeping the limb at rest to prevent twisting or bending (3) by intentional fracture where the regenerative process is slow as this seems to act as a new stimulus to bone growth.

JOSE L. POZZA.

Dibbelt: The Etiology of Rickets and Calcium Metabolism (Die Ätiologie der Rachitis und der Kalkstoffwechsel). *Deutsche med. Wochenschr.* 93, 2222, 55.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In contradistinction to Ribbert and Kasowitz, who deny any importance to disturbances of calcium metabolism in the causation of rickets, Dibbelt emphasizes the fact that in florid cases of rickets the amount of calcium excreted by the intestinal tract is greater than the intake while at the same time the amount of calcium in the urine may reach zero. Furthermore the healing or cure of cases of rickets is accompanied by hyperretention of calcium in the organism (with coincident increase of calcium excreted in the urine).

These facts can not be understood unless one presupposes a disturbance in calcium metabolism. In the presence of an easily disturbed balance in calcium metabolism, any of the many harmful factors to the general economy of the infant may occasion rickets.

SCHEIDT.

Flake: The Diagnostic Significance of the Leucocyte Count in Osteomyelitis and Tuberculosis of the Bones in Childhood. *Beitr. M. & S. J.* 193, 191, 606. By Surg., Gynec. & Obst.

The object of the paper is to draw conclusions from the average white blood corpuscle counts in acute osteomyelitis and tuberculosis of bones. The author defines leucocytosis as an increase of white blood corpuscles over 9,000 in adults and 7,000 in children. After citing a number of cases of acute and chronic osteomyelitis, the following conclusions are given:

1. The routine examination in all cases of osteomyelitis is 6,000 to 7,000.
2. The count varies directly with the acuteness of the process and with the patient's condition, higher in those whose condition is poor.

3. The degree of fever is a constant variant with the degree of leucocytosis.

4. High count is significant of pus or sequestra, or poor drainage.

5. Low count is indicative of a low grade process, a long standing process, or an acute process with free drainage.

Leucocyte counts were then made in a number of cases of bone and joint tuberculosis and contrasted with those made in acute infective osteomyelitis. The leucocyte counts in tuberculosis bone disease are largely negative, the evidence being against leucocytosis of any degree. The white count does not vary consistently with the acuteness or recency of the process, the temperature, or general condition of the patient, abscess or sinus formation or presence of von Pirquet reaction. Leucocytosis in tuberculous bone disease occurs in the presence of secondary pus infection.

F. G. DYER.

Lefars: Chronic Hypertrophic Osteitis without Abscess Formation or Necrosis (Constriction). *Étude des ostéites chroniques hypertrophiques sans abcès ni nécrose*. *Bull. et mém. Soc. de chir. de Par.* 93, 2222, 465. By Journal de Chirurgie.

Lefars reports the case of a man 35 years old, nonsyphilitic, with negative past history who in the last few years, noted a series of hard tumors — bony tumors — on the right tibia, with no crumpling pain or tenderness. His gait became more and more restricted as his limb increased in size and weight locomotion had been impossible for 15 months and patient was confined to bed for the last three months.

Lefars found the upper two-thirds of the leg twice the normal circumference. This area was covered with many hard tumors especially on the median surface of the tibia, the largest being the size of an orange. These tumors are rounded, smooth, non-adherent to the skin, and had the consistency of compact bone. All the muscles seemed absent save for vestiges of the calf muscles. No tenderness, ulceration or hyperemia of the skin was found. Movements of the knee were restricted and those of the foot were lost. After eliminating the possible diagnosis of sarcoma of the tibia — by the duration, slow growth, integrity of the skin, absence of general debility and general good health — Lefars diagnosed chronic osteomyelitis of an atypical form. He performed Gritti intracondylar amputation. Recovery was uneventful and the stump remained in good condition.

Upon examination of a section of the bone no sequestrum, necrosis, cavity, nor cystic condition of any kind were found. Histological investigation revealed chronic inflammatory process and osteitis tending to tumor formation. It was not possible to determine the respective portion of the two processes. This, then, is a curious form of hypertrophic osteitis belonging to the cases which are on the border line between chronic inflammatory condition and a neoplasm.

J. DUNCAN.

He uses a dose somewhat less than that required to produce erythema, and avoids using a larger dose on the deeper tissues, because it is impossible to know what is going on below the surface. He refers to the work of Iacini, who, after the prolonged administration of the rays under an aluminum screen, found that injury had been done to the deep vessels. He tried the optimum dose: that is, the dose which will destroy the foci of disease and stimulate without injuring the surrounding tissues. In order to avoid disturbances of growth, he does not treat children under five years of age. In older children the normal epiphyses are not subjected to the rays, but the diseased ones are. No bad effects have been observed. All forms of joint and bone tuberculosis have been treated with the rays, tuberculous fistulae, even when secondarily infected, were found especially adapted to the treatment. Discolored granulations disappeared quickly and became clean and firm. He warns against treating a fungus which is on the point of breaking through the reddened skin. He has seen severe sterile perforation of the necrotic skin in such case, even when very small doses had been given. A limb is subjected to the rays from all sides without any skin protection.

The best ray is obtained from tubes of 5-7 Benzelst, with a current of from 0.8 to 1 M. A. The uniformity of the rays during sitting is tested with Bauer's electrometer or parallel spark-gaps. The desired intensity of the rays is measured with Holzknecht's radiometer. It amounts at each point of contact to about 3-5 Holzknecht units. The surrounding area is protected by plumbobismale. The distance of the focus from the skin is 30 cm. The test body was brought into range of the cone of rays at just half this distance. After exposure to the rays from all sides there is an intermission of twenty-one days and then the sitting is repeated. As transformer Rosenthal's universal induction coil and Simon's interrupter were used. After the Röntgen treatment orthopaedic appliances were used for rest and immobilization of the limbs. Fistulae were rayed five days after the injection of Beck's bismuth paste. In the clinical part of his report, Schede discusses individual case histories more critically and gives instructive examples with X-ray pictures of the cases. Twenty treatments were given in severe cases. In conclusion he reports fifteen cases briefly.

SCHULZ.

Russell Treatment of Lime Starvation. *Med Rec* 95, Jan. 10, 1914, 577. By Surg. Gynec. & Obst.

Russell claims that rickets, tuberculosis, scurvy (infantile and adult) and many disorders accompanying pregnancy and lactation, may all be traced to lime starvation. His experience, however, is confined almost wholly to tuberculosis.

His treatment, begun in 1906, is based on the theory that lime is essential for the health of plant and animal life. An insufficient supply will result in (1) imperfectly developed organs (2) lowered resistance to disease (3) lack of power to repair

physiological waste (4) lack of power to repair injury.

Lime phosphate, per se, cannot be assimilated but must first be combined with a proteid. The enzyme rennet combines lime phosphate with casein, forming caseate of lime. In man rennet occurs in the form of symogen and its formation depends upon the presence of free acids, especially HCl. In the absence of the latter the free ferment is invariably wanting, even though the symogen is present. However rennet symogen is absent only when the secreting glands are destroyed, as in carcinoma. Only then does it become necessary to administer rennet or pepsin. The administration of acid is all that is necessary to produce the active ferment. A diminished secretion of HCl is brought about by many conditions of ill health and is probably the usual fault in cases which finally end in tuberculosis. It is quite probable that there are proteids other than casein that combine with lime through the action of rennet, although it has not been demonstrated.

To insure the absorption of lime it is necessary to supply lime phosphate, casein and dilute hydrochloric acid. No one alone will answer. The main sources of phosphate of lime are milk and eggs. In the treatment he advocates the milk-egg-acid mixture which consists of two eggs, quart of milk and four drachms of dil. HCl. This quantity is used daily. He also uses an emulsion of mixed fats, from one half to two ounces in hot water twice daily in conjunction with rigid discipline and the usual hygienic measures.

He states further that acute tuberculous pleuritis are plastic effusions, and should be regarded as evidence of an attempt at healing rather than as extension of disease. Serous effusion is evidence of lack of lime because the effusion is not plastic. In seven out of eighteen cases of probable pneumonic consolidation persisted for months because of the excessive amount of plastic effusion having been poured into the air vesicles. This condition cleared up after reducing the amount of milk and eggs and the omission of HCl. He reports 67 per cent of apparent cures of patients treated in all stages against 30 per cent apparent cures from six well-known sanatoria.

HENRY J. VANDER BONE.

Ely's Diseases of Joints and Bone Marrow. *Am. J. Surg.* 92, Nov. 8, 1913. By Surg. Gynec. & Obst.

This article is the beginning of a series and deals with the anatomy, physiology and pathology of bones and joints, and with cutaneous arthritis. The author bases his conclusions upon clinical observation, and laboratory study of about 120 specimens. He maintains that there are three active tissues to be considered namely the synovium, the marrow and the inner layer of the periosteum and four passive tissues, the bone, the cartilage, the ligament, and the outer layer of the periosteum, which merely manifest the changes in the other three. The inner layer of the periosteum is similar to the marrow in its functions and in its reaction to disease. The

quality of the marrow decides the location of certain diseases, whether in the shafts or at the ends of the long bones. Certain diseases select by preference the synovia certain others, the marrow; certain others the periosteum certain all three without preference.

The author discounts the importance of fibrin precipitation in joint disease and regards the cartilage as an absolute barrier to the progress of disease as long as its nutrition is unimpaired, hence maintaining that the cartilage is never invaded directly by any morbid process in the joint cavity. Any irritation in the joint mechanical or bacterial causes the synovia to proliferate.

The subject of acute traumatic (aseptic) arthritis closes the article and some of the more common injuries to the joints are described. The changes in a joint consequent to hemorrhage into its cavity (in hæmophilias) are regarded simply as a form of traumatic arthritis caused by a irritant. Gout is regarded in much the same light.

The article is illustrated by number of excellent photomicrographs which explain the author's views and make plain his meaning.

Rich Considerations Regarding the Pathology and Treatment of Some Common Joint Diseases. *Yankee Med.* 9, 3, 9.

By Surg. Gynec. & Obst.

Rich emphasizes the fact that where formerly a patient with fever, rapid heart and constitutional symptoms accompanying swollen and painful joints, was supposed to have rheumatism and as given the salicylates, we now consider such a septic toxic, or acute bacterial rhinitis. He says that ideas have changed so much that it is almost necessary to remind the profession that there is disease rheumatic fever. Under septic arthritis he classifies those joint conditions due to infectious agents, with their entry through the tonsils, teeth, genito-urinary tract, etc. These cases show the fever and chills found in all the most acute infections. Several joints are generally affected being tender and swollen and sometimes contain pus. Removal of the cause gives relief. He reports a case of typhoid arthritis. The pathology is based on a toxæmia of pneumococcal arthritis cases and he could see that the synovia is most often affected. The organisms were found. Many such cases are diagnosed as articular rheumatism. Joint destruction is not great. Salicylates do no good. Autogenous vaccines consist in the rational treatment. He holds that toxic arthritis is due to toxæmia from intestinal absorption and is of short duration. He reports a case in a child cured by high enemata. All cases of acute arthritis are treated by fixation in plaster for a period longer than is needed for fractures. The author thinks arthritis deformans mainly a frictional disorder of bones, principally the ends, and should be called osteo arthritis. He says there is little trophic and no constitutional symptoms also that faulty metabolism, elimination, or

internal secretion and the menopause are causative agents. Chronic rheumatic arthritis is the terminal result of acute rheumatic arthritis of joint, with a great atrophy of muscles and is predisposed to early life. There is impaired health, irregular progress with relapses and periods of improvement. The author thinks that the best treatment for arthritis deformans is by high colonic washings of gallons of water daily. Terminal antiseptics help. Deformities should be corrected under an anæsthetic, if necessary then kept at rest and baled daily in an oven. He claims to have had good results from the foregoing treatment. C. A. STONE.

Rosenow The Etiology of Articular and Muscular Rheumatism. *J. Am. Med. Ass.* 9, 3, 12, 35.
By Surg., Gynec. & Obst.

Rosenow in this preliminary note sets forth some very interesting results which he obtained in his work with the streptococcus group in its relation to rheumatism. Recognizing rheumatism as an acute infection he states from clinical and experimental facts that the etiology must be laid to streptococci of some variety but what particular strain is not settled. In a series of eight cases of acute articular rheumatism, all typical and not unusually severe, he isolated organisms corresponding closely to the micrococcus rheumaticus from one or more joints, and obtained positive blood culture in two out of four cases. He isolated similar organisms from cultures of tonsils in two cases. Two of his cases had distinct muscular and tendinous involvement.

In a series of experiments on rabbits, guinea pigs, white rats, and dogs, he found that these cultures were of low virulence, midway between the streptococcus viridans, and the hemolytic streptococci and pneumococci, producing lesions very different from the latter i. e. multiple non-suppurative arthritis, endocarditis, pericarditis and myocarditis. Strains of culture obtained from the tonsils at the height of the attack gave the same results as those from the joint. He points out that freshly isolated cultures did not produce abscesses, but by passing them through animals abscesses were produced. By animal passage and other means he converted these strains into typical hemolytic streptococci on one hand and pneumococci on the other hand. He also found that in the transition stages one strain from the joint lost much of its affinity for pericardial and articular lesions, but acquired pronounced affinity for myocardium and skeletal muscles.

He blamed lesions in the skeletal muscles in twelve rabbits, three dogs, and one monkey. He describes the lesions as elongated, variable in size, and running parallel with the muscle fibres. They contain few leucocytes and large number of living cocci. Microscopically they show coagulation necrosis of the fibres. The distributions of the lesions were most numerous in the tendinous portions of the extremities and flat muscles of the neck and shoulders, corresponding to rheumatism

in man. The virulent strains produced hemorrhages into the stomach, duodenum, sclera, retina and iris. In all the animals mild arthritis and endocarditis were present, and in most pericarditis of a mild type. He also emphasizes the important rôle that cold plays in rheumatism, and states that exposure to cold after injections of rabbits increased the percentage and degree of the joint involvement. Injections of frogs kept at temperature of from $+1$ to $+5$ C. with pneumococci, ordinary streptococci and the cocci from rheumatism, shows that frogs are not susceptible to the former but that they succumb to the latter.

He finds that the rheumatism cocci grow best at low temperature and this may be one of the reasons why chilling aggravates so markedly the symptoms of rheumatism. J. O. WALLACE.

Lindsay Rheumatoid Arthritis in Children.
Edinb. M. J. 9, 3, 2, 33. By Sarg., Gynec. & Obst.

The author believes that true rheumatoid arthritis of the trophic type occurs in children more frequently than is commonly supposed, and that the disease differs in no way from the adult type except that it progresses more rapidly and that glandular enlargement is more common. He believes the condition described by Still in 1897 and known in literature as Still disease is typical trophic rheumatoid arthritis with glandular enlargements.

He believes this disease is due to infectious or toxic causes and calls attention to the fact that glandular enlargement is much more pronounced and frequent in children following infections or toxæmias than in adults. He says, True osteoarthritis (hypertrophic arthritis) (the polyarticular variety) is met with rarely if at all, in children. The etiology and mode of onset is practically the same as in adults. Females are more frequently affected than males. The author describes sixteen cases, ten females, six males, between 10 and fifteen years of age, noting particularly the mode of onset. Attention is called to the tendency to symmetrical involvement of the joints, the marked trophic and the early tendon contractures.

Treatment by medicine, mechanical measures, diet, massage, local applications, and at times is discussed. Special stress is laid upon complete rest of the affected joints, and equable climate, generous diet especially of milk, cream, butter and fats. Syrup ferri iodidi, and guaiacal carbonat are recommended for medicinal treatment.

JOHN L. POWER.

Ely Joint Tuberculosis. *Intern. M. J.* 9, 3, 23.
 334. By Song, Gynec. & Obst.

Ely defines joint tuberculosis as proliferative inflammation of the bone marrow and of the synovia or one of them characterized by the formation of typical tubercles and caused by the tubercle bacillus. He asks, Why does tuberculosis affect the ends of the long bones and not the shafts? Various unsatisfactory answers have been given. (1) Activity

of circulation about the centers of growth at the ends of bone. This he says is inadequate explanation as it should apply to other structures in the body also. (2) Slowing of the blood stream in the capillaries of the spongy bone. If this were the case it would also predispose to all other infections. (3) Exposure to trauma. This again does not hold. Severe injuries never cause the disease. The portion of the bone where the disease starts is not exposed to trauma. (4) The most widely accepted theory is that the arteries are in the epiphyseal area and arteries and a plug embolus is supposed to lodge in these. Ely says this is a plausible theory but one that does not hold. Other organs in the body having end arteries are not similarly affected, e.g., the brain. This theory would deny the possible synovial origin of the disease. Also an anastomosis is present in the ends of the bones of adults and also in the bones of the carpus and tarsus. Here tuberculosis exists. Tuberculosis exists in the ribs without regard to end arteries. Ely's explanation lies in none of these theories but in the quality of the marrow in the region of joint which is the red or lymphoid marrow. Wherever lymphoid marrow is, here is favorable soil for tubercle bacilli. Synovia is also lymphoid structure so particularly vulnerable to tuberculosis. Under pathology, he says, the fact must be kept prominently in mind that pure tuberculosis remains confined to the lymphoid elements making up the joint mainly the synovial and red marrow. When secondary infections enter in, other structures become involved. Tuberculosis may form in the marrow beneath the articular cartilage. Entrance to the joint may be attained in two ways, either by perforating through the cartilage or burrowing along to the edge of the cartilage and so into the joint cavity. A healthy cartilage is a complete barrier to the progress of the disease. Rarely the inflammation may not reach the joint but bursts through the periosteum and thence to the surface. Ely says the deeper layer of the periosteum may be likened to an external layer of marrow and so is open to invasion. This deeper layer is continuous with the synovia, as the superficial is with the ligaments. The synovia is not a distinct structure in itself and its limits are hard to define. Pure synovial cases are rare in childhood but fairly frequent in adult life. The bone itself he says, is never invaded but reacts secondarily to the disease of its costal marrow. The cartilage suffers not from the tuberculosis but from attrition from disease in the subjacent marrow. Ely says he has never been able to identify the layers of fibrin so often spoken of as being precipitated on the cartilage in these cases. The ligaments are only passive in the action. Speaking of cold abscesses, he says tubercles are only demonstrable in their walls when the abscess becomes secondarily infected.

His symptomatology is the usual one. He brings out the point that muscular spasm and muscular atrophy are more prominent in the bony type than in the synovial. Under diagnosis the usual differ-

entations are made. The test of withdrawing fluid and injecting into a guinea pig is mentioned. Under prognosis, many things are to be considered and carefully weighed. As regards function it is much better in children than in adults. Treatment, he says, brings us back again to the pathology. The two things necessary for the function of a joint are synovia and lymphoid marrow. If function be removed these two structures disappear. The disease dies out with them as they are the soil for tuberculosis. Briefly Ely recommends in adults radical, and in children conservative, treatment. Under radical are two operations: resection and amputation. The former where practical, the latter when indicated by the severity of the disease. He can see no advantage in injections of chemicals.

M. S. HAYESKISS.

Porter: The Treatment of Tuberculous Joints.
Surg. Gynec. & Obst., 9 3, xvi, 334.

By Surg. Gynec. & Obst.

The paper is a review of the whole subject and a clear statement of the methods of treatment which advanced thought is proving to be best. The opening paragraphs sum up the nature of tuberculous joints and the requirements necessary in their treatment. Porter impresses the three facts that tuberculosis is a self-limited disease, that it always results in deformity and disability and the amount of deformity and disability depends on the extent and duration of the disease. To combat this disease there are three indications for treatment. First, increase resistance, second, put the joint in the best possible position for future usefulness and third prevent deformity.

The various methods of treatment are then taken up. Under Mechanical Treatment immobilization is given the chief place, and the fact is impressed that immobilization must be complete until the joint is cured in three to five years. Plaster of Paris is efficient in the early stages. Brier obstructive hyperemia is mentioned as probable aid when thoroughly and efficiently carried out. Surgical treatment for fixation of joint in adults is advised otherwise, surgery should be avoided in every possible way. Antiseptic injections are considered practically useless. Cold abscesses should be left alone unless they interfere with the treatment of the joint, then they should be opened, evacuated and closed without drainage under aseptic precautions to prevent secondary infection. Sinuses are always the result of secondary infection. They should be treated as little as possible, except that bluntness put is useful where there are no large cavities. Tuberculin in very small doses may be helpful.

F. C. KEMER.

Hoon and Ross: Infections of the Hand. *Ann. Surg.*, Phila., 9 3, xvi, 551.

By Surg. Gynec. & Obst.

A study of all the cases of infections of the hand treated in the German Hospital Dispensary from

April 1 1902, to October 19 1902 ninety cases in all.

The authors followed the treatment advised by Kanavel. They found the method so successful that they have continued to use it.

They divided their cases into

1. Felon 9 cases

Paronychia 4 cases

3. Carbuncles, furuncles, infected blisters and cuts, with other superficial infections. Simple incision, iodine, and wet dressings prevented superficial infections from becoming deep ones in 54 cases.

4. Deep fascial space and tendon sheath infection, twenty-three cases were treated with gratifying results.

The anatomy of the fascial spaces where pus might accumulate, as described by Kanavel, was made use of.

1. The tendon sheaths of middle, index and ring fingers, extending from the distal phalanx to a line joining the ulnar end of the distal palmar crease and the radial end of the proximal palmar crease—Kanavel 11 e

The tendon sheath of the flexor digitorum profundus and radial bursa extends from the base of the distal phalanx and when connected to the radial (as it does in 9 out of 10 cases, Poirier) it extends to the lower end of the radius.

3. Tendon sheath of the little finger and the ulnar bursa, when connected (as they are in 50 per cent) extends from distal phalanx to lower end of ulna.

Incisions used in opening fascial spaces and tendon sheaths

Tendon sheaths along proximal and middle phalanges are opened laterally. If drainage is insufficient lateral incision is made along proximal interphalangeal joint.

The thenar sheath may be split up to a thumb's breadth distal to the anterior annular ligament, to avoid cutting motor nerve and loss of apposition of the thumb.

3. The hypotenar sheath may be cut from base of little finger to the anterior ligament.

4. The ulnar or radial bursa above the wrist: one incision is made one and a half inches above tip of ulnar down to and across flexor surface of ulna. A closed hemostat is thrust across both ulna and radius and pronator quadratus and counter incision made where hemostat shows beneath skin. The latter should be one and half inches up fore-arm.

5. The middle palmar space, opened by incising into lumbrical canals preferably between middle and ring fingers, may be made one and a half thumb breadths to palm and hemostat thrust beneath the deep flexors into middle palmar space.

6. Middle palmar and thenar space: a hemostat is pushed through incision just described for opening middle palmar space, across the middle metacarpal bone and through the thin partition between this space and the thenar space and on across the adductor transversus muscle to the dorsum between

the first and second metacarpals at about middle of the second metacarpal. Counter incision is made here and drained for eighteen hours.

7. Mid-palmar combined with subaponeurotic incision is made between middle and ring metacarpal where palmar crease crosses, a haemostat is thrust to dorsum and counter incision made.

8. The nail space, may be opened by one incision on radial side of second metacarpal opposite middle of bone and on level fifth flexor surface. A haemostat is thrust through into the nail space as far as middle metacarpal and no further.

9. Subaponeurotic space dorsal incision in interosseous spaces.

10. Hypothenar space by simple incision.

The average of the 3 cases as 5 years and time of treatment after onset as 6 days.

Nitrous oxide and oxygen was used in eighteen cases, ether in five. The preliminary bandaging of fore-arm with gradual release and irrigations were abandoned as unnecessary. 1 case of incision of tendon sheath the hand and fingers were held in extension with wooden splint until danger of prolapse was past. Passive movements were started on the second day. Exploratory incisions proved free of danger. Hot boric acid dressings for three days were followed by dry ones. There was one secondary hemorrhage from a digital artery.

There as perfect restoration of function in eighteen cases, partial in five which had bone or tendon necrosis before treatment.

CONCLUSION

In the sixty-seven cases of simple infection all were saved from becoming severe.

1. The relation of the anatomy to infective processes as employed by Kavanal affords simple indications for treatment of any infections of these parts.

2. For the twenty-three cases of deep infection the incisions recommended by Kavanal resulted in the most perfect restoration of function with the least scarring.

3. Disregard of the danger of opening lat uninfected areas caused no harm. Doubtful areas were incised before pus filled areas.

4. Bloodless operative field was unnecessary.

5. Conservative irrigation did no harm, but just as good or better result were obtained by washing off what pus could be brought to the surface by gentle pressure.

6. Passive movements of fingers in a day or so were free of danger and greatly aided after usefulness.

7. Dorsal incisions are rarely needed. Redness and oedema is common and tempts the uncertain practitioner to incise and poultice pus free areas.

8. Hot wet boric dressings, dorsal splint, flat cast rubber drains were used—never tubing.

9. All cases without necrosis of bone or tendon when first seen recovered perfect function.

DONALD GORDON.

FRACTURES AND DISLOCATIONS

Estes, Huntington, Walker Martin and Roberts: Fractures; Preliminary Report of Committee. *T. Am. Surg. Ass.* 93, May. By Surg., Gynec. & Obst.

The scope of this investigation includes the following points:

1. The value of the treatment of recent closed fractures of the long bones by non-operative methods and the treatment of the same lesion by operative method.

2. The value of operative and non-operative treatment of recent open fractures.

3. The comparative value of these two methods in vicious union and non-union of closed fractures.

4. The use of the X-ray.

5. The percentage of patients able to return to work without disability.

A synopsis of the work done by the Committee of the British Medical Association is given in some detail as follows:

1. That it is possible to obtain a large per cent of good results by either operative or non-operative treatment except in fractures of both bones of the forearm.

2. Operative treatment of fractures requiring special skill and facilities to prevent sepsis (a considerable proportion of failure of operative treatment is due to sepsis).

3. That the mortality of the operative treatment of closed fractures in good hands is negligible. (However to those unable to wall themselves of the proper asepsis, the non-operative method is likely to remain more safe and serviceable.)

The report next discusses the variable factors which must necessarily enter into a statistical study such as local complications with injury to the skin, nerves, muscles and blood vessels.

The paper then discusses the chief methods of non-operative treatment of fractures namely:

Prolonged continuous immobilization of the seat of fracture and adjacent joints by external application of rigid splints or dressings. This may be called the immobilization method.

Immediate gentle massage or friction relaxation of displacing muscles, with almost no fixation, and very early mobilization of the neighboring joints. This is known as the Lucas-Championnière method.

In the United States neither of these methods has recently been employed, but the intermediate method is probably much more frequently adopted in the treatment of fractures.

The report next defined what is meant by non-operative treatment as follows:

Immobilization method.

Mobilization method.

3. Operative method. This consists of incising the soft parts so as to disclose the seat of fracture and permit the application of splints, screws or wire directly to the fragments. (The treatment of mal-union or non-union of fractures is not discussed.)

The report next sets forth the difficulties attending a statistical analysis, mentioning the fact that for such a report to be worth much, surgical attendance during the various fractures, should be equally skilled, the fractures identical in character and situation, and the patients similar in temperament and environment.

X-ray examination should be made, and reduction attempted under anesthesia. After a few days the reduction should be confirmed by X-ray, and attention given to active and passive motion of the joints. Prolonged abstinence from weight-bearing must be insisted upon in fractures of the lower limb.

The committee next discusses the following questions:

What should be the routine treatment for the average general practitioner and those unskilled in surgery as specialty?

What should be the routine treatment for the trained surgeon with the usual facilities afforded by small or cottage hospital?

What should be the routine treatment for the skilled surgeon with adequate hospital facilities?

For all three classes of medical attendants the committee believes that prolonged immobilization with *continuous fixation* by external splints and apparatus should be abandoned because of the unfavorable complications. This method fortunately has long been abandoned by surgical experts.

For the first class, the committee suggests the study of routine method, midway between that of immobilization and mobilization. General anesthesia should nearly always be employed in the diagnosis and reduction of the fracture. X-ray readings should be interpreted only under the direct supervision of a man accustomed to both clinical and radiographic examination of bone lesions.

The maintenance of the reduction of the fragments should be assured by the physician. Traction, splints, or other easily removable and adjustable apparatus, should be so arranged as to allow easy and frequent inspection of the seat of fracture and to permit easy passive, and slight active movements. Molded splints of gauze, gypsum, or other plastic material fit well and fulfill the above requirements. The watchwords for this first class of practitioners are general anesthesia, plastic splints, or traction, friction, and frequent inspection, early mobility and delay in weight-bearing.

What should be the routine treatment for the trained surgeons restricted by the moderate facilities of small cottage hospitals? Operative treatment should be restricted to rebellious fractures. The troublesome fractures that may, with propriety be mentioned as probable candidates for operative treatment are:

(1) Fractures of the surgical neck of the humerus, (2) T-fractures of the lower end of the humerus, (3) fractures of the upper third of the radius, (4) fractures of the upper third of the radius with dislocation of the radial head, (5) fractures of the radius and ulna in the shafts, (6) fractures of the upper third

femur (7) supra-condylar fractures of the femur (8) fractures of the tibia and fibula near the ankle occasionally.

In a general way, it may be said that operative treatment suggests itself as the preferable method in any fractures which cannot be properly reduced and retained after reduction. If operative treatment be selected, the metal plate under absolute asepsis is the final resource, unless open reduction alone, or sutures, nails, or screws be effective. The operation should be immediate—that is, within a week or ten days after the receipt of the injury.

What should be the routine treatment for the skilled surgical experts with adequate hospital facilities? To this class it makes little difference whether the non-operative or operative plan is followed. It is probable, though not certain, that consolidation of fracture takes place little more slowly after direct fixation of the fragments with a metal plate than in well reduced fractures under non-operative treatment.

There are certain investigations which the committee desires the fellows of the association to pursue during the next year.

The effect of immediate efficient reduction under general anesthesia.

Mobilization with light friction. (Lucas-Champagnier method.)

3. Molded splints not circular encasements.

4. Increasing the full time of coalescence of consolidation in fractures of the weight-bearing bones.

5. Fixing standards for the determination of the probable period of absence from work demanded by treatment, and of the degree of permanent, partial, total disability likely to accrue from particular fractures.

6. The value of straight dorsal splints or the plastic palmar splints in fractures of the lower end of the radius.

7. The value of abduction in certain fractures of the upper end of the humerus.

8. The value of heavy weight traction. (Vock.)

9. The use of the Thomas Jones splint in fractures of the shaft of the femur (Jones.)

10. The use of an abduction frame in fractures of the upper third of the femur (Jones.)

11. The value of forced abduction in fractures of the femoral neck. (Whitman.)

The use of double traction in fractures of the femoral neck. (Marshall.)

FREDERICK G. DYAR.

Miller: Primary Traumatic Dorsal Complete Radiocarpal Dislocation. *Surg. Gynec. & Obst.*, 1914, xvi, 400.

By Surg., Gynec. & Obst.

There are fewer than forty reported cases of complete dorsal dislocation without fracture. Classifications are not uniform, and often reports are incomplete. Dupuytren denied even the existence of this lesion, and gave as his experience that these supposed dislocations of the wrist turn out to be fractures. The injury occurs most often in young

male adults — those exposed to acute traumatism. Only one case has been reported above 30 years of age.

T show the screwlike action in its production Rydygier and Cameron each recite an instance in which the elbow was fixed against a wall with the hand dorsally flexed against a moving wagon. Reports in which the hand was bent *dorsally* have been made by Bays, Cooper and others. The production of exactly the same lesion due to *volar* flexion has been reported by von Brunn and Roland. Most displacements occur without break in the integument although this has been noted by Coteau, Korte, and others. This is frequently followed by infection. In few instances this lesion was diagnosed post-mortem or confirmed by operation.

In the differential diagnosis the following must be excluded (1) Barton's fracture (2) separation of radial epiphysis (3) luxation of carpus (4) the carpus upon the metacarpal (5) fractures of forearm, (6) Colles's fracture.

Mechanically the most favorable position obtains with the hand dorsally flexed and fingers partly cotracted — clawlike. The volar tendons act as skid to elevate the carpus out of the radial socket. Spasmodic contraction of forearm muscles maintains the deformity. Displacement is exactly at the radiocarpal joint the deformity is angular the prominence abrupt. The hand assumes plane parallel but posterior to the forearm. Reduction, if not simple, should excite suspicion of some complication. No mention is made of permanent disability.

The two reports case as follows. On August 9, 9, young man age 30, while attempting to start the motor of a large aut mobile, felt sharp pain in the region of his right wrist. He was pushing down upon the starting crank. Examination showed a backward deformity at the radiocarpal joint. Styloid process of both radius and ulna were normally located. No crepitus, but pain was elicited on motion. Reduction was easily obtained by traction. An excellent result was secured.

SURGERY OF THE BONES, JOINTS, ETC.

McGillivray The Open Treatment of Fracture of the Femur *Surg., Gynec. & Obst.*, 19 3, xvi, 439.
By *Surg., Gynec. & Obst.*

The author points out that the union of broken bone is a vital process, governed by the general laws of wound healing and that good results in open treatment do not depend on the enderence and resistance of the plates and screws, but rather on placing the limb in the position that relaxes the muscle and inclines the fractured portion nearest normal line. The plate is an internal splint one whose application directly the bone makes perfect position possible, but whose action is required only for the length of time necessary for the formation of firm callus. Tension strong enough to break the Harnsman silver plate, or great enough to loosen

the screws, will prevent bony union although perfect approximation is obtained.

The technique is described in detail. The method of securing traction is the only original contribution claimed. This is done by passing a long drill through the femur above the condyles and making traction on this by means of a rope of gauze passed across the front of the thigh. The advantages of this method are rapid action with employment of minimum force, consequently lessened shock. In addition the popliteal space is not subjected to pressure. In the after care of the patient thyroid extract is administered daily from the third to the sixth week to influence ossification at the point of union.

Fratton A New Application of Free Osteoplastic Operation in Fixation of Paralytic Foot (Eine neue Anwendung der freien Osteoplastik in der Fixation des paralytischen Fusses) *Zentralbl. f. Chir.* 9 3, xi, 30.

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

The thor has carried out an osteoplastic operation in the fixation of the ankle of a fifteen year old girl, with old spinal infantile paralysis, as follows. After lateral incision, an osteoperforal lamella of sufficient length and maximal thickness of 5 cm. was removed with a chisel from the lower part of the fibula. This was then placed between the previously prepared surfaces of the external malleolus and the calcaneus, and was here fastened at both ends with few silk stitches through the periosteum and the superficial layers of the bone. The operation was carried still further by the freshening of the opposed joint surfaces of the os calcis and os naviculare, and by an approximation with strong silk by means of through and through suture. Moreover the tendons of the fibularis anticus and fibularis posticus were fixed in the region of the talocrural joint by simple suture in the strongest parts of their previously opened sheaths. Seven months after the operation the results, so far as appearance and function were concerned, were good.

BRANDER.

Schulze The Treatment of Fracture of the Patella; New Method of Repairing the Extensor Muscles (Die Behandlung der Patellafraktur die neue Methode zur Rekonstruktion des Streckapparates) *Zeitsch. f. orthop. Chir.* 19 3, xxi, 367.
By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

A separation of the patellar fragment can only take place if there is a simultaneous rupture of the extensor muscles at the top of the fracture. To restore the separated parts to position, the continuity of the muscles must also be restored. This is accomplished by means of the forceps technique. The fragments are seized with Murrex forceps and pressed toward one another in such a way that the surfaces which are normally turned toward the femur lie almost against each other. With two other Murrex forceps the lateral and median muscles of the patella are seized, stretched, and sown with

caught. Then, after removal of the forceps, the fragments are drawn back into their normal position and fastened with periosteal suture. Bony healing takes place in this position. The skin is sutured and drainage maintained for twenty-four hours. On the tenth day the skin sutures are removed, and the twelfth to the fifteenth day medico-mechanical treatment is started. This gives better results than massage. In old or refractory cases, the connective tissue scar is excised and, under some circumstances, the fragments are extensively resected. Here, too, hypertension and suture of the contractile tissues is of great importance.

In nine cases Schulze obtained good results by this method. Of those who were insured against accident only one received 30 per cent of his insurance, another only one year' temporary annuity. The oldest patient (6 years) left the hospital after twenty-eight days with the knee-function completely restored.

WITTEK.

Von Wresniowski: Operation and Open Method of Treatment in Persistent Fistulous Tuberculosis of the Joints (Operation und offene Behandlungsmethode der fistulösen Gelenktuberculose). Deutscher chir. Kong. 9 2.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The joint should be opened by a long transverse incision beginning at the extensor surface and, if necessary for free exposure bilateral longitudinal incisions should be supplemented. The joint is then opened by flexion to permit of a thorough inspection of all the parts. The tuberculous foci are excised from the bones and the soft parts. Then all cavities are thoroughly packed with mull and joint extended and immobilized in proper position, avoiding sutures of any description. At every redressing the joint is opened, the gauze removed, and all cavities carefully examined. New granulations, which are excised the packing is then replaced by fresh sterile gauze and the immobilization attended to as described supra. The more the granulation tissue forms at the base of the wounds, the greater the caution to be observed in the flexion of the joint.

The advantages of this method are: (1) The frequent possibility of making amputation unnecessary in old advanced cases of suppurative tuberculosis of the joints. (2) Prevention of the typical retraction and shortening of an extremity. (3) The possibility of a thorough inspection of the entire diseased area every redressing and the immediate excision of any newly formed tuberculous processes. (4) The possibility in nearly all cases, of healing the wound without the formation of fistula that so frequently resolves itself into annoyingly prolonged and offensive after-treatment. (5) A considerable reduction of pain at the redressings.

The disadvantages are: (1) Prolonged treatment before healing and cicatrization are completed, from 3 to 6 months. (2) The final result in the majority of cases is complete ankylosis.

This method the author has employed, since

90 in the shoulder elbow knee, ankle Chopart, and Lisfranc joints and has had permanent results in over 50 per cent of the cases. I. e., there were no fistula and no relapses.

Todd: The End Result of Excision of the Elbow for Tuberculosis. Ann. Surg. Phila. 9 2, 1894, 90.
By Surg., Gynec. & Obst.

The difference in opinions held by surgeons as to the ultimate state of or the changes in a joint necessary for a cure of tuberculosis is the excuse offered by Todd for a short contribution on this particular joint disease.

The author's report of a cured tuberculous elbow joint without destruction of joint function is not, as he states, in refutation of Ely's contention that ankylosis is the essential factor but merely to show that a cure of a tuberculous joint may be effected with preservation of joint function.

Todd dissected the body of a female aged 30 years, whose death was due to an abscess of the right frontal area of the brain. There was an active tubercular lesion of the right tarsus and a like lesion of the frontal bone on the right side. The right elbow joint, previously the seat of tuberculosis, and on which a partial excision had been done, showed no evidence of the disease. Although the olecranon and the entire articular surface of the humerus had been entirely removed, the dissection disclosed joint cavity lined with synovial membrane, filled with synovial fluid.

Histologic study by Lorrain Smith of the joint structures further demonstrated the actual presence of synovial membrane, and the absence of tubercular disease. Todd is of the opinion that a cure of tuberculous joint disease does not necessarily call for an obliteration of the joint cavity.

WM. FULLER

König: Clinical and Experimental Observations on Ivory Transplantation (Klinische und experimentelle Beobachtungen über Elfenbeinimplantation). Deutscher chir. Kong. 9 2.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In reference to former successful implantations König reports on the method of healing and technique. With good asepsis, bone and soft parts enter into intimate union with the ivory. It is gradually replaced by bone. The behavior of the soft parts is particularly important. If, as frequently happens, extravasation of blood leads to a fistulous perforation, surrounding the ivory with a secondary muscle transplantation will be sufficient to close the fistula. This of course is not done in infected cases. The ivory must be implanted firmly in the bone, and closely surrounded with the soft parts. The larger joints offer considerable difficulties. In such cases the muscles may be sutured directly to a prosthesis in the ivory.

The author adds another successful case to those previously reported. The case reported in 1902 in which the lower jaw was implanted has remained

cured. The last case was an ivory implantation into the elbow joint (the trochlea with a piece of humerus the width of hand being removed). The patient has been using it for year. He moves the joint, is free from pain, can lift with the arm and no fistula remains. Kossy again recommends ivory implantation in fractures and in bony defects, including joints.

Röpke. Transplantation of Fat in Joint Surgery
(Über die Verwendung intracapsuläres Fetts in der Gelenkchirurgie). *Deutscher Chir. Kong.* 93.
By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

Since his previous report in '09 the author has been working clinically and experimentally on this subject. Clinical observation has shown that flaps of fat as large as the palm of the hand may be used in joints without any retardation of the healing of the wound. The special functional demands made on the fat flaps in the joint causes a different result in the regenerative process than if the fat had been transplanted into subcutaneous tissue because there is greater new formation of connective tissue between the heavily weighted and moving ends of the bone. But in places where the fat is able to permit a split of the functional demands made on it, after some degeneration at first, normal fat tissue is found again after about 4 weeks. A further report will be given of the finer histological changes. Röpke operated on thirteen joints and interposed free flaps of fat. They were finger, wrist, elbow, shoulder, hip and knee joints which came for treatment of synovitis and fibrous ankylosis from old dislocations. He used Kocher's incision in the elbow-joint. There was primary healing in all cases and the functional results were good. He used free transplantation even in the operative treatment of joint tuberculosis and here as in the other cases, obtained healing by first intention and good functional results. At the hip-joint, after removal of the diseased capsule, cleaning out the acetabulum and excision of the diseased head, the rest of the neck was moulded the acetabulum filled with large flap of fat and here as in all other cases, the joint closed up and placed in plaster cast for three weeks.

After that active movements were begun which were gradually combined with the orthopaedic methods. Very vigorous movements are not to be undertaken the first few weeks, in order to avoid hemorrhage by tearing loose the flaps and thus interrupt active motion. In the knee-joint two lateral incisions, convex-posteriorly and T-shaped incision in the fascia are made. The lateral ligaments are separated from the epicondyles of the femur, the diseased capsule removed, the joint surface of the patella and the femur and the condyles of the tibia excised in crescent shape. An intercondylar fossa is then made in the femur the tibial condyles hollowed out and the eminentia capitis restored, fat flap as large as the palm of the hand is drawn over the femur another of equal size is fixed by sutures in the upper concavity the lateral ligaments sutured

and the joint closed. After three weeks in a plaster cast, active movements are begun with massage of the very much atrophied extensor muscles. The position of the leg is excellent and since the extensors have not been injured in any way by the operation, eight weeks afterward the leg can be completely extended and motion take place through an angle of 45°. In a case of elbow joint tuberculosis with old cicatrices from fistula, the interposition of fat proved a very good method. Röpke, on the ground of his clinical and experimental investigations, recommends transplanted fat flaps as excellent material for interposition in joint surgery even in cases where tuberculosis is present.

Letter: Re-transplantation of Joint Bones
Arthro-autoplasty (Rückverpflanzung von Gelenk- kernen Gelenkautoplastik). *Zentralbl. f. Chir.* 93.
21, 603 By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

In laceration fractures which were formerly treated by removing all dislocated pieces of bone and those completely separated from their surrounding tissues, the author recommends utoplastic implantation of such bones, reconstructing the normal anatomical relations as well as possible. The growth of such implantations is made difficult because the fragments are not placed in normal tissues. In the recent cases, the tissues are poorly nourished on account of the hemorrhages and contusions in old cases, extensive coagulations interfered with the blood supply of the segments implanted. The attempt should always be made, as in the worst cases (necrosis of the implanted parts) the result will be as good as the immediate removal of such parts would produce.

The author operated two such cases to date. The first case was an elbow joint fracture and dislocation 12 months standing. The completely separated fragment was restored to its normal location and held in place by a peg made of bone. The result was good functionally. The second case was a laceration and fracture of the humerus. The line of the fracture extended obliquely below the surgical neck. The completely separated fragment was fastened to its normal location on the humerus by silver wire and then the articulation was replaced. The result promises to be good, though the after-treatment is not completed.

VON TAYSSIER

Allison. The Results Obtained by Implantation of Silk Tendons in the Residual Paralysis of Poliomyelitis. *Am. J. Orthop. Surg.* 93, 319.
By Surg. Gen. & Obst.

The author discusses the operations used to produce stability in flail joints. Arthrodesis has lost its vogue, due to the poor results that have followed its use in children. Lange and Lorenz are both of the opinion that it should not be done before the patient has reached the twentieth year then, also the joint function if the articulation to be stiffened should be carefully considered. Considerable success has followed the use of silk check ligaments.

ORTHOPEDIC SURGERY

DISEASES AND DEFORMITIES OF THE SPINE

Murphy Impacted Fracture of the Body of the First Lumbar Vertebra; Laminectomy; Rapid Recovery Following Decompression of the Cord. *Surgical Cases of John B. Murphy*, 3rd, II, No. 2. By Surg., Gynec. & Obst.

While walking in his sleep a man of 35 fell distance of about 3 feet, striking on his buttocks. He was unable to get up on account of pain in back was able to move his legs, but it hurt him to do so. When put back to bed his doctor found a prominence of the last dorsal and first lumbar vertebrae with ecchymosis. Examination showed no paralysis but loss of sensation over buttocks, perineum, scrotum and back of thighs, as far as knees no loss of sensation in front of thigh no girdle pain and no annular paralysis. Since accident he had to be catheterized thrice daily. For the past week or two control over bladder seemed to be returning. For the first four or five days had great trouble in getting his bowels to move since then had had in voluntary evacuations. For past week was getting little control over sphincter. Examination revealed a prominence of the eleventh and twelfth dorsal and first lumbar spines. No paralysis of muscles of thighs, but calf muscles felt flabby. Tactile sensation absent over glutei and diminished on back of thighs. Superficial reflexes present. Left knee jerk exaggerated right slow and scarcely perceptible.

Operation showed a pronounced luxation forward of the first lumbar vertebra the angulation was so sharp and the cord compressed so much it seemed strange there was no complete paralysis. The spinous process and lamina were removed from the first lumbar vertebra so the cord was perfectly free behind the zone of compression. The muscles were sutured across the spinal column with catgut, and outside this the lumbar fascia sutured, also with catgut making an encephalic apposition. The dura was not opened. Patient left hospital with five weeks, wearing leather jacket. Ten months later he returned for examination. He had regained complete control of his sphincters and of all muscle power except that he could not raise himself on his toes. He returned again after a more month. He could not raise himself on his toes, but about five months after the operation he had entirely recovered from his injury still wearing the leather jacket. L. J. MITCHELL.

Hatch The Use of Corrective Plaster Jackets in the Treatment of Scoliosis. *New Orleans M. B. S. J.* 9, 3, 1917, 5. By Surg., Gynec. & Obst.

Scoliosis is considered from the standpoint of the general practitioner to whom suggestions regarding early diagnosis and proper disposition of patients are given.

Technique is considered in part two cases are reported and four illustrations appear.

The value of preliminary exercises over a period of a month before corrective plaster jackets are used is advised. The jacket is put on in suspension, first getting the patient in as good a sitting posture as possible on an adjustable seat. Rotation is corrected by hands pulling in alternate directions, with as much force as the patient can stand. The author claims good results if sufficient time and attention are given these cases. H. B. THOMAS.

Albee An Experimental Study of Bone Growth and the Spinal Bone Transplant. *J. Am. M. Ass.*, 9, 3, 1917, 144. By Surg., Gynec. & Obst.

Albee presents in this paper deductions and conclusions based upon experimental operations on thirteen dogs, reported in full, in conjunction with a clinical experience gained from 30 bone-grafting operations on the human subject. He concerns himself chiefly with the operation of transplanting a wedge-shaped strip of tibia into trough formed by splitting the spinous processes, in Pott's disease. The article is illustrated with photographs of specimens showing end results.

According to Albee a bone transplant may act efficiently either by healing solidly in place and remaining in toto, or by serving as an osteoconductive scaffold and becoming absorbed. If the graft is to live, he says, the blood supply contacts must be of favorable character and unobstructed distributed along its whole extent. It apparently acts always as a stimulant to osteogenesis on the part of the bone into which it is transplanted. Periosteum and marrow substance on the bone graft may serve an important rôle in aiding to establish an early and abundant supply but transplants without periosteum give good results. In the dog the spinal graft loses its identity at about the fourth month, but bony bridge remains. Albee states that he was unable to produce a bony bridge between vertebrae experimentally by the method of breaking down the spinous processes one upon the other (Hibbs) or by the insertion of periosteum.

The author had successful experimental results with grafts which had been kept in normal saline at low temperature for as long as a week, and portions of transplant became united to the recipient bone even in the presence of active sepsis. Grafts from another species did not take. He considers that its germ-resisting property and its early adhesion, by bony growth, to bone with which it is in contact, makes the bone graft superior to metal internal splints, which favor sepsis and induce bony absorption.

The conflict between the ideas of MacEwen and commonly accepted opinions as to the osteogenic function of periosteum Albee explains by stating

MALFORMATIONS AND DEFORMITIES

ALANCKE, EDUARD, PARIS.

that the outer layer of peritoneum is largely composed of connective tissue, and that the active osteogenic cells are in intimate contact with the surface of the bone. Dissection with a blunt instrument is not likely to be deep enough to include this osteogenic layer. He advises accordingly the use of a sharp perforator elevator in bone resection.

ELKINDER, The Correction of Congenital Squint. *British Medical Journal*, 1911, 2, 107.

By SAM. GYMER, & OBE.

Elkinder says that in his series of strabismic cases, twenty had been previously operated without permanent correction, which proves the treatment in many cases is faulty. The causes of failure are first, lack of overcorrection, second, retraction of the sclera, and third, a time.

The perforator is best begun at once after birth and can often be accomplished by a series of cuts extending to above knee and without operation. Correct values and adduction first cut.

Adhesion is noted by the bellows that to severe cases with the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

He says the idea that "Pigtail" operation corrects the foot nail it is badly before applying plaster.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

By SAM. GYMER, & OBE.

that the outer layer of periosteum is largely connective tissue, and that the active osteogenic cells are in intimate contact with the surface of the bone. Dissection with the instrument is not likely to be deep enough to include this osteogenic layer. He advises accordingly the use of a sharp periosteum elevator in bone resection.

ALBERT EISENHARTZ

MALFORMATIONS AND DEFORMITIES

Eisenhartz: The Correction of Congenital Equinovarus. *Northwest Med.*, 9:3, 27.

By Surg. Gynec. & Obst.

Eisenhartz says that in his series of thirty-six cases, twenty had been previously operated without permanent correction, which proves the treatment in many cases is faulty. The causes of failure are first, lack of overcorrection; second, retention of the support for too short a time. The proper time is until the child is walking for at least a year after final correction. Treatment is best begun at once after birth and can often be accomplished by a series of casts extending to above knee and without operation. Correct varus and adduction first cut Achilles if need be. He believes that in severe cases in babies and in all after one year, forcible complete correction under anesthetic should be done, working with the foot until it is flabby before applying plaster. If says the idea that Phelps' operation corrects more quickly is wrong, so support for long time is necessary and besides it has the disadvantage of leaving a foot predisposed to become flatfoot.

He prefers to remove wedge of bone from the outside of foot, thinking it much superior to Phelps' procedure. In the thirty-six cases, nine were discharged without supports, remaining corrected now for periods ranging from three months to three years. Three still wear supports. The above twelve began treatment under five weeks of age, eight were three to eighteen months, all corrected under anesthetic tenotomy of Achilles only five were cured three still wear supports. Seven were two to five years. Overcorrection in one operation. Three are cured, two wear plaster one wears nothing and tends to relapse, the other has been lost

sight of. Six were five to eleven years. Two only Achilles divided, four had tenotomy plus removal of wedge of bone from outside of foot. Two were cured four under treatment. Two fourteen year old cases had Achilles cut one cured, one wearing plaster. One twenty-two year old case of moderate deformity had great force used upon it by the bloodless method. Eisenhartz says, though the result is perfect, he would do an open operation next time. Concluding, he says, there are no incurable cases of congenital equinovarus.

C. A. STONE.

Sever: Coxa Vara: Some Observations on This Condition with Especial Reference to the Question of Spontaneous Recovery from This Deformity. *Boston M. & S. J.* 9:3, 497.

By Surg. Gynec. & Obst.

Sever cites nine cases of coxa vara accompanying knock-knees or bow-legs in which rachitis is the underlying cause. With the exception of one case, treatment was resorted to only for the knock-knees and bow-legs. The result obtained for the coxa vara condition was equally as good as in the one case receiving the usual treatment. It seems that as the coxa vara tends to return to normal, any restoration of the lower leg toward a normal weight bearing line would also have a favorable influence in hastening the above tendency.

The author's conclusions are

Rachitic coxa vara is a frequent and concomitant condition of knock-knees and bow-legs, but may exist independently.

In this series of cases it was observed to a greater degree in knock-knees than in bow-legs.

3. The condition apparently needs no treatment.

4. The correction of a co-existing condition of knock-knees or bow-legs may hasten the process of recovery from coxa vara. This statement is made without evidence to support it.

5. In all cases there is a tendency to spontaneous recovery and a restoration toward the normal angle of the neck of the femur without treatment, with no cessation from use or weight bearing.

6. There is probably very little or no permanent disability in the average case.

C. M. JACOB.

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

Chlari: Contribution to the Study of Free Transplantation of Fascia in the Human Organism (Ein Beitrag zur Kenntnis des Verhältnisses freier transplanterter Fascia im menschlichen Organismus). *Wien klin. Wochenschr.* 19:3, 221, 247.

By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author had an opportunity to examine microscopically very carefully a piece of fascia, taken from the thigh, 8 cm. in diameter which had been transplanted to cover a defect in the dura after

extirpation of a tumor and had to be removed after sixty days because of a recurrence. The piece of fascia showed areas of severe injury in the form of hemorrhages, swelling and liquefaction of some of the fibre bundles, large areas, however, remained alive, which was shown by the good staining ability of the tissues and the nuclei, as well as by definite signs of circulation formation. The nourishment of the transplant was provided especially by granulation tissue which had spread from the edge over the same.

WORTHMAN.

MISCELLANEOUS

CLINICAL ENTITIES—TUMORS, ULCERS, ABSCESSES, ETC.

Hoffman The Menace of Cancer *T. Am. Gynec. & Obst.*, 9 3, May By Surg. Gynec. & Obst.

On the basis of trustworthy official data, it was safe to estimate the annual mortality from cancer in the United States as 75,000 and in the civilized world 1 half million. The cancer death rate in the United States was increasing at the rate of 35 per cent per annum and corresponding increase was taking place practically throughout the civilized world. The average age of death from cancer in 11 forms was 59 years, or respectively by 60.4 per cent years for males and 58 per cent for females. Cancer was largely a disease of adult life and the total mortality from cancer 60.7 per cent were deaths of ages 14 and over. The male cancer death rate in the United States, ages 35 and over had increased 30 per cent during the last decade and the female cancer death rate had increased 3 per cent. On the basis of past experience, the distribution of cancer deaths in the United States during 1913 would be about as follows: Cancer of the stomach and liver 30, 5 cancer of the female generative organs 35, cancer of the rectum, intestines and peritoneum 9,608, cancer of the breast, 6,577, cancer of the mouth, tongue, etc., 3,860, cancer of the skin, 670, and cancers of other organs and parts, 685.

These statistics fully sustained the conclusion that cancer is the most serious menace to the American people and that the tendency was toward an increase in the mortality regardless of the cancer deaths prevented by early surgical operation. The cancer death rate of large American cities had increased from 3 per one hundred thousand population during the five years ending 1906 to 8.5 per cent during the five years ending with 1910. The cancer death rate of the city of New York had increased from 37.5 per one hundred thousand population during the three years ending with 1870 to 84.4 during the five years ending with 1910. The corresponding increase in the cancer death rate of Philadelphia during the same period of time had been from 4.31 to 86.3 per cent. At ages 60 and over in the state of Massachusetts, the mortality from cancer of the external organs for males had increased from a rate of 65 during the five years ending 1900 to 90. The corresponding increase for females aged 60 and over had been from 85.6 per cent to 13 per cent. Aside from the observed increase in the mortality from cancer, there had been an increase in the mortality from biliary calculi in the registration area of the United States from 5 per cent per one hundred thousand of population in 1900 to 3.0 per cent in 1910. All the facts available for the different sections of the country

and the principal cities throughout the world sustained the conclusion without qualification, that the menace of cancer was much more serious at the present time than it had been in the past.

The only hope for the patient lay in the early possible recognition of the symptoms of cancer when operative treatment was comparatively easy matter.

Walker and Whittingham The Effect of General Contraction of the Peripheral Blood Vessels upon Mouse Cancers. *Lancet, Lond.*, 9 3, March 6. By Surg., Gynec. & Obst.

The liquefaction and final disappearance of tumors in mice are obtained by the intravenous injection of various highly toxic materials. The theory of the treatment is based upon Ehrlich's statement that tumor cells possess much greater avidity for oxygen and nourishment than do the cells of normal tissue. In the case of all these experiments the useful dose of the compound is nearly as great as that which kills the animal outright, and must be injected directly into the circulation. The immediate effect of the compounds injected by Neuberg and his collaborators is described as contraction of the blood vessels of the body and dilatation of those of the tumor. The dilatation and contraction of blood vessels is controlled by the nerves, and hence it is possible that when these poisonous substances are introduced into the circulation the immediate result is the contraction of the blood vessels generally excepting, of course, those in the tumors, through the action of the compounds upon the nervous system. The blood vessels and spaces in the tumor owing to the increased pressure produced by the contraction of the vessels of the body are passively dilated. The poisonous compounds, having been introduced directly into the blood stream, could thus act far more upon the tumor cells than upon those in the body generally, and as they are described as being very unstable they could tend to break down before the blood vessels of the body again dilated.

The authors injected mice, in which tumors had been produced by grafting, with various substances which produce a rise in the blood pressure and contraction of the vessels in the body generally. The substances with which the best results were obtained were ergotin, preparation made from ergot, and pituitary extract. The authors give in detail their results from the use of these two substances and think that in view of their work, these two substances produced somewhat similar results to those used by Wassermann and by Neuberg and his collaborators. In the case of the pituitary extract, where the dose was larger and more injections were given, necrosis was induced as well as hemorrhages, and the growth of the tumor was appar-

ently checked in a large proportion of cases. But there is no suggestion that there was any specific action upon the cancer cells. They think that the results obtained with the other substances used by Wassermann and Neuberg and his collaborators are also mechanical, although, as the substances they used were highly toxic, their results, in the case of the animals that survived the treatment, were more perfect. It seems possible that something might be done towards producing an effect upon cancer cells by injecting substances which will tend to kill the cells, in combination with something which will contract the blood-vessels, such as pituitary extract and ergotin.

DOUGLAS C. BALFOUR.

Rous: False Transitions Between Normal and Cancerous Epithelium. *J. Exp. Med.*, 93, xvii, 494. By Surg., Gynec. & Obst.

The question as to whether there is a true transition between normal and cancer cells has been much debated on account of its bearing on the theory that cancer originates directly from the normal cells among which it arises, certain investigators holding that this does occur. Rous presents a number of photo-micrographs of sections showing apparent union and transition. The sections were taken from rats in which cancer tissue had been implanted exposed surfaces made by removing disc of skin, and show how deceptive these transition pictures may be.

Rous does not affirm or deny the existence of transition, but presents the article and photographs merely for the purpose of drawing attention to the greater caution necessary in interpreting the histological appearances of transition between normal and carcinomatous epithelium. JAMES F. CROWCUTT.

Tyler: A Transplantable New Growth of the Fowl Producing Cartilage and Bone. *J. Exp. Med.*, 193, xvii, 466. By Surg., Gynec. & Obst.

Tyler has successfully transplanted osteochondromas of the common fowl, designated as Chicken Tumor VII. He has transplanted it to seven successive series of hosts. The original growth contained bone and cartilage and was attached to the sternal keel of an otherwise healthy chicken. In the growths derived from its transplantation cartilage is regularly laid down, followed by bone if the host lives long enough. The prechondral tissue consists of spindle-shaped or multipolar cells of the fibroblastic type. The histological character and behavior of this prechondral tissue shows it to be sarcomatous, and this is further proven by the occurrence of metastases in one case.

The tumor could not be transferred to pigeons, but grew readily in two alien breeds of chickens. Re-inoculation experiments suggest the occurrence of natural individual immunity, and of certain degree of acquired resistance. The tumor has been transferred by means of the filtrate of a Berkeley filter.

JAMES F. CROWCUTT.

Davis: The Transplantation of Rib Cartilage into Pedunculated Skin Flaps: An Experimental Study. *Bull. Johns Hopkins Hosp.*, 93, xiv, 6. By Surg., Gynec. & Obst.

In the correction of mutilations or defects, such as those which involve the ears or nose, it is often requisite to use flaps of tissue with skin on both sides. These flaps can be secured in many ways, but Davis believes the factor of chief importance is to provide a framework to support the flap which will secure the desired contour and at the same time prevent shrinkage. The ideal substance for this purpose is readily seen to be a material which will not act as a foreign body, one which is easily obtainable in rigid enough form for the purpose and at the same time can be shaped as desired. In seeking for some suitable tissue in the body which would fulfill these requirements, the author was led to undertake the experiments with costal cartilage which are outlined in this article.

Twenty-four experiments were carried out on fifteen dogs. The cartilage was obtained from the cartilaginous ribs. The perichondrium was not disturbed except when shaping was done. The cartilage was either imbedded in a thin layer of subcutaneous fat, or was placed in a pocket burrowed in the subcutaneous tissue itself or was surrounded by the skin after the subcutaneous tissue had been removed. It varied in location and shape of the cartilage in the different flaps. In some it was placed parallel to the base of the flap and in others vertically and in different parts of the flap. In still others it was placed diagonally across the flap. The pieces of cartilage used varied in length from $\frac{1}{2}$ to 7 cm. They were allowed to remain in the flaps from 7 to 30 days. Macroscopic examination at the end of this period showed in every instance that the squarely cut ends of the transplanted cartilage had become slightly rounded. The healing was reactionless and the cartilage did not act as a foreign body. The measurements of the cartilage when removed from the flap differed very little, if at all, from those taken at the time of transplantation.

Microscopic examination showed the transplanted cartilage surrounded by loose connective tissue zone containing blood vessels, which were more or less abundant according to the length of time after transplantation. The cartilage cells appeared normal and there were no signs of degeneration or absorption.

From the results which Davis has obtained in these experiments and from clinical experience he feels sure that the transplantation of rib cartilage into skin flaps is a safe and promising procedure. It suggests that cartilage can be used with advantage in otoplasty in the restorative operations made necessary by traumatism and disease. In microtia also much can be done, by the transference of a flap thus supported, in improving the condition due to arrested development. In rhinoplasty the cartilage support can be placed in a double faced skin flap from a distant part when it is formed, or can be

inserted after the flap is in its new position. It is especially advantageous in the correction of middle nose.

As to the fate of the transplanted cartilage in these experiments as far as can be seen the cartilage lives, is properly nourished and does not act as a foreign body. There has been no increase in length in any of the pieces transplanted. There is practically no absorption and there are no signs of degeneration, either macroscopically or microscopically. The cartilage shrinks very little if any up to four months, which is the longest period in the series and it seems reasonable to believe that it will continue to be nourished and will live and act as support as long as needed. GEORGE E. BARNY.

SERA, VACCINES, AND FERMENTS

Kocher. Further Observation on the Treatment of Tetanus with Magnesium Sulphate (Weiter Beobachtungen über die Heilung des Tetanus mit Magnesiumsulfat). *Cor. Bl. f. Schweiz. Ärzte* 93, 11b, 97.

By Zentralbl. f. d. ges. Chir. L. Gernsperg.

This paper is a detailed communication regarding three further severe cases of tetanus which were treated by intradural injection of magnesium sulphate. Two of the cases recovered.

The third was the case of a 6 and a half year old child in the Abderhalden type of tetanus—an infant which showed an extraordinarily favorable nutritive substratum for the tetanus bacillus after an eight-day incubation. As a result there was a rapid development of tetanus in its most virulent form in which the muscles of the head, back and thorax were especially involved in cramps. As an associated cause of death, the autopsy showed thrombosis of the sinus longitudinalis, of the left sinus transversus of the perforated cerebral sinus, and of the branches of the pulmonary vein of the right lung lobe. A traumatic necrosis which had reached the main bronchus but was not regarded as the cause of local injury through tracheotomy. The author was of the opinion that the following threatening state (respiration).

A 0.5 per cent magnesium sulphate solution was used for injection according to the age of the patient and the violence of the spasms. Occasionally several injections a day are required. The injection is indicated with the appearance of muscular spasms, and with continued rigidity only where respiration is markedly inhibited by the rigidity of the throat, abdomen and thorax muscles. In the cases observed, cessation of the cramps, relaxation and sleep appeared after a short time—occasionally after only a few minutes. The effect of this intradural injection of magnesium sulphate depends upon local processes. The position of the patient helps greatly influence over the manner in which this spreads, so that if the patient is placed horizontally or if the head is placed a little lower, deep sleep appears after a very brief time. This effect is also

seen if the head is not lowered until some time after the injection. In an examination of the spinal cord of the child which had died of tetanus, Bürgi was able to demonstrate the presence of the magnesium salt in the nervous tissue and he found that the content decreased from above downward. This tallies exactly with the clinical observations on the influence of position on the extension of the action. The significance of this lies in the fact that the physician may thus regulate the distribution of the drug. Kocher recommends that one strive to secure a cerebral effect from the first where the muscles of the head and chest are involved. Where the respiratory center tends to become dangerously involved, there are certain remedies, such as the washing of the subarachnoid space with salt solution and insufflation of oxygen or air. The author performed tracheotomy in all three cases and insufflated oxygen. According to a communication from Mehlner however a sustained insufflation under 15 to 20 mm. mercury pressure is preferable because in that case the carbonic acid is more quickly expelled. A prophylactic physostigmine injection or even prophylactic tracheotomy may be considered, in order that, in case of necessity oxygen or air may be immediately administered.

WORTHMAN.

McCORD. The Employment of Protective Enzymes of the Blood as a Means of Extracorporeal Diagnosis. *Surg. Gynec. & Obst.* 9, 2, 1, 1, 2. By Surg. Gynec. & Obst.

On the parenteral introduction into the blood of substances different in structural form from such as normally occur there arise enzymes capable of digesting these foreign materials, and transforming them into forms not qualitatively different from normal blood constituents. The portals of entry for such materials are (1) overloading the intestinal tract so that some food passes through the enteric barrier by a complex form (2) from intravenous and intra-abdominal injections (3) or from the organs of the body which from their individual specific nature when thrown into the circulation exchange albumens, etc. no less foreign than parenteral injections. This formation of protective enzymes is involved in the phenomena of sensitization, anaphylaxis and immunity. Such an enzyme cleavage of proteins underlies the various cutaneous reactions such as leprodiagnosis, tuberculin reactions, and the cutaneous diagnosis of syphilis. It is pointed out that cleavage of proteins not only occurs intracorporeally, but that drawn blood has similar proteolytic activity. When placed in contact with substances against which the contained enzymes were generated. The serodiagnosis of pregnancy as evolved by Abderhalden is based on this phenomenon. In the period of placental formation cellular fragments from chorionic villi are thrown into the maternal circulation with the concomitant formation of protective enzymes (choriolysins) which in turn digest the

placental proteins. Drawn blood containing these enzymes digest extracorporeally placental proteins, breaking the complex forms down to the amino acid stage, which through dialysis serves as a criterion of the test.

Employing the methods of Abderhalden with some modifications, laboratory work on humans, cows, dogs, and guinea pigs was carried out. Two hundred and forty experiments yielded results corroborating the results reported from Abderhalden's work. A more permanent and more easily handled preparation of placenta, as obtained by desiccating the coagulated placenta, by extracting repeatedly with acetone and drying "in vacuo" in an atmosphere of toluol. This by comparison with coagulated placenta in the same cases gave accurate results. Despite the complex technique and many sources of error the method when carefully controlled appears sufficient merit to prove of value in the differential diagnosis between pregnancy and the many simulating conditions.

Von Rock: The Relative Value of Living or Dead Tubercle Bacilli and of their Endotoxins in Solution in Active Immunization Against Tuberculosis. *Med. Rec.*, 9, 3, p. 370, 1907.

By Surg., Gynec. & Obst.

Spontaneous recovery in tuberculosis is assumed to be due to the formation of specific protective bacteriolytic substances which can be demonstrated in the sera, but in many cases resorption of bacillary products is massive, overwhelming the organism and in others complicated by absorption of products of other pathogenic bacteria and the course of given case depends therefore largely on these two factors.

If, during the excessive resorption of bacillary products, such serum is tested for amboceptor, it is only that which is not bound to the free endotoxins or bacilli which is demonstrable. The united antibodies and endotoxins are further reduced through the ferment action of complement and these reduction products are presumably toxic peptones whose elimination through the kidneys account for the toxicity of the urine in tuberculosis. With the advent of sufficient drainage amelioration occurs coinciding with the disappearance of antigen in the blood, but often accompanied by excessive resorption of endotoxins corresponding with the increased tissue disintegration.

For these reasons active immunization is not always necessary and at an inopportune time may do harm, while progressive cases receive the best but little benefit. Relapses under any degree of immunity may be accounted for by the breaking down of caseous tissue with renewed absorption of bacillary products, while in surgical tuberculosis demonstrable antibodies occur late if at all and are especially liable to be benefited by active immunization.

In considering the antigen for the production of active immunity it is agreed that it must represent all body substances of the bacterium. Many anti-

gens have been offered and the contradictory results following their use lead many observers to believe that a true immunity against tuberculosis was impossible of attainment. The demonstration of antibodies by the complement of fixation test has greatly aided in solving this question. A sterile soluble vaccine if equally efficient is preferable to one of dead or living bacteria either for therapeutic or prophylactic purposes, because of the inaccuracy of the dose of the bacillary emulsion and the liability to local necrosis at the point of injection. The power to liberate endotoxins from the bodies of tubercle bacilli is acquired very slowly in the normal lower animal and one has no right to infer it to be any greater in the non-tuberculous human when it is desired to give the antigen for prophylactic purposes. Furthermore living tubercle bacilli of the human type have been found in the milk and flesh of vaccinated cattle three years after their intravenous administration and the danger of resumption of virulence is great. The experiments of many observers being quoted to show that avirulence by passage through animals is not permanent.

In discussing prophylactic immunization against tuberculosis by means of a non-living antigen in the form of pure endotoxins of tubercle bacilli, Von Rock attributes its value to the presence of all necessary constituents of the organism. The results of the administration of this vaccine in two series of cases are offered the first determined as long as fourteen months and the second only three months after vaccination. Of 3 cases examined fifteen months later all have made complete physical and clinical recovery after a single dose of vaccine with one exception in which other than tuberculosis disease accounts for the ill-health. Of 66 cases showing glandular enlargement involving one to six groups there are now only seven which show enlargement, confined to one or two groups. Subcutaneous tuberculin tests, positive in all cases before treatment, now are uniformly negative.

The improvement in cases of the second series examined three months after vaccination is marked. Two are still under treatment, ten are clinically well and the balance have physical signs limited to small areas. No glandular enlargement is demonstrable in forty cases which previously showed involvement of one to six groups.

Von Rock believes he has supplied sufficient evidence of the prophylactic value of his vaccine and summarizes it as follows:

After the full dose of vaccine all the specific antibodies can be demonstrated in every serum after the fifth day and without diminution up to twenty months.

These sera cause complete disintegration *in vitro* of the bodies of virulent tubercle bacilli to granules and free fat and *in vivo* cause such complete destruction that no bacillary residue is demonstrable.

3. The sera destroy all virulence of the bacillary residue left over in the tubes used for bacteriolytic tests *in vitro* and immunized animals withstand the

tests *in vivo* as do normal animals when the immune serum is injected at the time the infection is made.

4. Animals can be immunized to the degree their sera showing the same bacteriolytic action *in vivo* and *in vitro* and these animals resist an infection many times more virulent than is necessary to kill controls.

5. I over 50 cases of early pulmonary tuberculosis a single full dose of vaccine was invariably followed by clinical cure. E. K. AARWOLD.

BLOOD

Epstein. Further Studies on the Chemistry of Blood Serum. *J. Exp. Med.*, 95, 1914, 441.
By Surg. Gynec. & Obst.

Epstein has made chemical analyses of the blood serum in various disease conditions, and has found that the proteins are subject to extensive variations, and in some conditions the globulin content is markedly increased. In the present paper he reports the observations on three classes of cases. All are localized renal affections. He found that in the minor surgical cases (considered normal) the chemical composition of the serum agrees as far as its proteins are concerned with the usual values. There was no variation found on repeated examination. The incoagulable nitrogen varies considerably in this total amount in the different cases, as well as in its percentage relations to the other constituents of the serum.

The cases of prostatic hypertrophy, with or without testicular nephritis, show no change from the normal in the character of the protein content nor the ratio which the individual fractions bear to one another. On the other hand, the non-coagulable and non-protein nitrogen show marked fluctuations, some of which correspond to the degree of functional deficiency of the kidney. In cases of localized infections of the kidneys, the changes in the serum are not so marked. There is an increase in the globulins due to the infection, as is seen in the infections localized elsewhere. The non-protein nitrogen increases apparently in direct proportion to the functional impairment of the kidney.

JAMES F. CRAWFORD.

Abderhalden. The Detection of Foreign Substances in the Blood by Dialysis and Optical Methods and the Use of Koch's Method and the Principles Underlying Them. *Pathology (Der Nachweis blutfremder Stoffe mittels des Dialysierverfahrens und der optischen Methode und Verwendung dieser Methoden mit dem Koch'schen Verfahren Anschauungen aus dem Gebiete der Pathologie)*. *Brux. Ann. d. I. Internat. Congr. de l'Immunologie*, 1913, 242.

By Zentralbl. f. d. ges. Chir. u. Gynäk. d. Grenzgeb.

A summary is presented of the views of Abderhalden on the reduction of foreign substances in the blood stream by protective ferments and the detection of the latter substances taken on as food are so changed by the function of the gastro-intest-

nal tract and liver cells that they become readily absorbed. The detection of the protective ferment permits of the conclusion of the presence of these foreign substances. This proof may be rendered by the dialysis and the optical method. The peptone which is the end product of the action of the serum containing the protective ferment on the foreign substance in the blood permeates the dialyzing capsule and thus may be detected in the outer fluid by the biuret test or by aldehydism. For the optical test peptone is produced from the tissue to be examined which shows a definite refraction in the polariscope. The action of the ferment containing serum on this peptone changes the deflection. The former method is the simpler one; the second enables quantitative determination. Minute description of the methods and the different sources of error is given. A practical test in diagnosis of pregnancy is possible by the detection of the protective ferment in the pregnancy serum which acts on the placental tissue. Further possibilities for the use of this method in the different problems of pathology may be expected. BOWEN.

Schlossman. What is the Practical Surgical Value of Determining the Coagulability of the Blood? (Welchen praktischen Wert haben Blutgerinnungsbestimmungen für die Chirurgie?) *Deutsch. Arch. Klin. Chir.*, 93.

By Zentralbl. f. d. ges. Chir. u. Gynäk.

If the determination of coagulability is to have any practical value a simple and at the same time, accurate apparatus must be available. The author thinks Birkner's is the best for the practitioner. The procedure is of diagnostic value in revealing cases of masked and partial hemorrhophilia, where clinical symptoms are lacking though the coagulability of the blood is decreased. It has no value as

means of differential diagnosis between doubtful cases of hypo- and hyperthyroidism (Kocher). Slight changes of coagulability, such as Kottmann asserted were present, are found only in very marked cases of Basedow disease or myxodema. Determination of coagulability is very valuable aid in prognosis here operations are performed in cases of cholelithiasis. They give due to prognosis, not only as to the general resistance of the cholelithic patient, but also as to the moment of post-operative hemorrhage to be expected. The knowledge of the blood capacity for coagulation has so far had no satisfactory therapeutic results. All means used to increase it are notoriously uncertain in their effect. Some progress has been made in controlling hemorrhage by the local application of tissue juices which favor clotting. Tissue fluids expressed from the human thyroid and from animal organs, prepared by the 'author's' method, which renders them stable and sterile have been used with good results in hemorrhage from operations on parathyroid tissue especially in cases where the coagulability of the blood was defective.

Unwara, in discussion calls attention to the fact

that in experimental work to test the influence of various substances on the coagulability of the blood, it must be removed from the vein in such a way that it touches nothing but the endothelium. Even the slightest admixture of these juices must be carefully avoided. The coagulability of the blood is markedly increased by the addition of concentrated salt solutions.

KARSTEN

Drugs. Coagulation of the Blood and Its Value in Obstetrics and Gynecology (Die Koagulation des Blutes und ihre Verwertung in Geburtshilfe und Gynäkologie) Schmidt. Jährb., Leipzig, p. 3, March. By Surg., Gynec. & Obst.

This is an exhaustive résumé of all the recent literature on the subject. After fully reviewing and discussing the various papers, the following conclusions are drawn:

First, in diseased conditions the coagulation is much more frequently lengthened than shortened.

Second, it is doubtful whether there is an increased coagulation of the blood which is of pathological importance to man.

Third, therefore all attempts to prevent thrombosis in the circulating blood by lowering the fibrin coagulation ability are purposeless.

CLIFFORD G. GUYLER.

BLOOD AND LYMPH VESSELS

Pfender. The Value of Skiagraphy in the Diagnosis of Aneurism of the Abdominal Aorta; Presentation of Case and Descriptive X-Ray Plates. *Week. M. Am.* p. 3, xl, 9. By Surg., Gynec. & Obst.

Pfender says that although vascular skiagraphy is very difficult as compared to that of bones, at the present day with improved and perfected Röntgen apparatus it is possible not only "to confirm diagnosis of aneurism but to establish positive diagnosis in fairly early stages of such conditions in even extremely doubtful cases. Very little skiagraphic work has been reported about abdominal aneurism, probably because this form of aneurism is less frequently encountered than the thoracic variety and also because it is practically impossible to use the fluoroscope because of the density of the abdominal tissues.

Any part of the abdominal aorta may be the seat of an aneurism but it most commonly occurs in the region of the coeliac axis and is of the sacular type, later becoming fusiform. The condition is usually not diagnosed till it has progressed so far that a tumor can be seen and expansile pulsation elicited, and in many cases diagnosis is never made. The author therefore suggests that in an obscure symptom-complex arising within the abdominal cavity an X-ray be taken. If aneurism be present, the plate will probably show erosion at some point along the spinal column and this erosion is easily differentiated from tuberculous osteitis.

The prognosis of aneurism of the abdominal aorta

is most unfavorable at present, the average course being 15 to 20 months. In 65 per cent of the cases it terminates in rupture. Surgical procedures are of little value.

Case report. Man, mulatt, age 36. History negative. Wassermann negative. Hard worker. Patient hurt his back in 1911 while doing heavy lifting. A dull pain developed and became so severe that patient was incapacitated. Pain radiated from back to both hips and caused weakness in lower extremities. Relief was obtained by lying face down on a hard table. Lost 63 pounds in 1 year and was treated for tuberculosis without benefit. On examination by Pfender patient presented a tumor about 6 cm. to left of last dorsal vertebra or first lumbar. Expansile pulsation. Radiograph showed partial erosion of first lumbar vertebra and lateral deviation of the spinal axis to the right. Also showed a distinct shadow from the upper border of the 12th dorsal to the 2d lumbar vertebra and about 7 cm. to left of the lumbar spine. Pain was terrific and constant and the course was steadily downward in spite of all treatment. BRECKEN M. HICKOK

Key. Operation for Embolus of the Femoral Artery (Fall of operat emboli arteria femoralis) Hyyon. *Stockholm.* p. 3, lrv. 73. By Zentralbl. f. d. ges. Chir. u. l. Grauech.

A forty-three-year-old man with a mitral stenosis of several years standing had been feeling thoroughly well, but was suddenly attacked by pain in the abdomen, bloody diarrhoea and vomiting. A diagnosis of probable embolus or thrombosis of the mesenteric vessels was made under general treatment the patient improved, but twenty days later he suddenly began to have severe pain in the left popliteal space, also coldness and lack of sensation in the leg.

On a diagnosis of embolus of the femoral or popliteal artery, the patient was perated seven hours after the beginning of symptoms. Incisions made over the back of the foot and in the popliteal space demonstrated that the arteries were empty. An incision was then made in the inguinal region, exposing the common superficial and deep femoral arteries. For 2.5 cm. upwards from the bifurcation of the common femoral artery resistance was felt, which, on incision, proved to be an embolus, completely filling the artery. The common and deep femoral arteries were clamped, but none were placed on the superficial femoral. After removing the embolus, a troublesome hemorrhage occurred from the collaterals through the external pelvic artery. The incisions at first did not bleed, but now that the circulation was unimpeded they bled freely. The extremity was elevated after the operation. During the after treatment there was temporary paralysis of the peroneus muscles and thrombosis of the external peroneal veins, with stricture of the gastrocnemius muscle, probably caused by a slight ischaemic contracture.

Three cases of operation for embolus of the

peripheral arteries were found in the literature one successful and two failures. While it is a generally accepted opinion that the circulation in an extremity can be cut off by an ischemic bandage for two or three hours without injury from this case it appears that a complete occlusion can last for seven hours without necessitating amputation. **GUNZ.**

Oppel Wieting's Operation and the Impeded Circulation (*Die Wietingsche Operation und der reduzierte Blutkreislauf*). *Archiv-Zeit.* 9 3, 17, 301. By Zeitschrift. I. d. ges. Chir. u. Urolog.

The author states that Wieting's operation is successful only in cases of slowly progressing ischemic gangrene not complicated by either thrombophlebitis or phlegmon. Biers' experiments show that under increased pressure in the veins the resistance of the valves can be overcome and that the blood stream can be reversed, but further experiments by the same author show that even under rather high pressure only part of the blood can be forced through the capillaries into the arteries. Blier explains this by the so-called blood-sense (*Blutgefühl*) that is, the selective power of the capillaries to allow only arterial blood to pass through. It is therefore possible after Wieting's operation for the blood to overcome the pressure and empty itself into the arteries, though it must not be forgotten that Blier's experiments were performed on limbs under constriction. If the extremity is not constricted, the blood will partially overcome the resistance of the valves, but will return by way of the collateral veins without reaching the capillaries, as the experiments of Coenen and Wlewnorowsky go to show. In spite of this, Wieting, and more recently Perlmoff insist that the operation is followed by objective and subjective improvement, though neither author can explain his point satisfactorily.

The author agrees with Hesse that the improvement is to be explained by the delayed return circulation that is caused by the slowing of the blood currents. The author suggests the ligation of the popliteal vein, and considers this a palliative procedure claiming to have observed temporary improvement in all his cases except one. The disadvantage of the operation in the author's opinion is the decreased supply of arterial blood in the collateral vessels, whereas success can be attained only by raising the pressure in these vessels, a condition which can be produced in cases of gangrene of the foot by interfering with the venous return by ligation of the popliteal vein. The author considers the ligation of this vein a palliative measure which is contra-indicated when there is thrombophlebitis or edema of the extremity involved. If gangrene has set in and amputation is refused, this measure will relieve the pain temporarily even though the development of the process cannot be checked. If the gangrene has not developed, the function of the extremity may be temporarily restored. **VON ROSEN.**

Warner and Von Zubrzycki The Influence of Colloidal Silver on the Opsonic Index (*Über die Beeinflussung des Opsonic durch Elektrolyt*). *Mitschen. med. Wochenschr.* 9 3, 12, 131.

By Zeitschrift. I. d. ges. Chir. u. Gynäk. u. d. Geburtsh.

Colloidal metal influences the opsonic index of serum toward various bacteria. This action does not depend upon the colloidal nature of the substance but upon the metals. The behavior of the leucocytes toward streptococci under the influence of colloidal silver was studied in man, animal, and the test-tube. For the animal tests, rabbits were used. The vein of the ear was injected with an isotonic colloidal silver solution, 0.5 gm. per kgm. body weight. The serum was collected before the injection as well as one hour and twenty-four hours afterwards. A twenty-four hour bouillon culture of streptococci was diluted 3. The leucocytes of the patient were washed three times in normal salt solution after the blood had been collected in a 1/4 per cent sodium citrate solution. The experiments showed that after twenty-four hours the phagocytosis is markedly raised but in the one-hour specimens this is not noticeable. For experiments on the human, two pregnant patients, two with puerperal fever and two puerperal cases without fever were injected with the silver solution in the vena medialis cubiti. The results were the same as those in animals and there were no variations in the way the different patients reacted. In the afebrile cases nervous manifestations, increased blood pressure, cyanosis and frequent pulse appeared all of which subsided in 5 minutes. Lastly experiments were carried on to study the nature of the action brought about by the solution to see whether it affected the phagocytic potency or whether the serum was mainly affected. These resulted in the conclusion that the results were due to the change in the serum. The opsonic index of the leucocytes is raised only in the presence of and by means of serum. **HERMAN.**

ELECTROLOGY

Grödel Four Years of Experiments with Röntgen Ray Apparatus with an Interrupter (rectifier) and Certain Important Modifications of the Apparatus (*Vierjährige Erfahrungen mit roter Brechvorrichtung [Klickschalter] Röntgenapparaten und einige wichtige Neuerungen an denselben*). *Mitschen. med. Wochenschr.* 9 3, 12, 471.

By Zeitschrift. I. d. ges. Chir. u. Gynäk. u. d. Geburtsh.

One disadvantage of the Röntgen apparatus with an interrupter is that the interrupter very soon wears out and is difficult of manipulation. This fact led the author to devote several years to the elaboration of a practical Röntgen ray apparatus without an interrupter. The instrument devised, an alternating current is used, which for high tension work is transformed into pulsating direct current (without closing the current) by means of secondary rectification. The secondary energy can be very exactly measured. This makes the apparatus economical for X-ray treatment, the phases of the current

which not require produce steady no ill
 cramping induced t spec fly constructed
 cost The ppa tust about interrupter his
 also bec m d uit ble for ry hort sta hespo-
 re t increasing t pacit the correspondi g
 t be increased eff t ont and the ppa t
 th interrupter b ry g the muth of t
 rupting the current The increased ppa t is
 ult ned b ond ting the rapidly interrupted
 primary rent of the r t h e t small peculiar
 unstrated transformer about iron enclosure
 rapid d magnetis g ry g t produces very
 hort sec ndary current huch then on d cted
 t the large tra sform th t ro en los re
 ll t produces sex lary m huch too
 ped m t but t very high tension The
 recte prov ded b gle truk t rupter is
 herif t as usual as th ppa tatus with
 errup under ert num t m e t is en
 pe t h be use t be simplest d t oper too
 M re

Caan Treatment of Malignant Tumors with
 Radio-acti bstances / Behandlung malign-
 er Tumoren mit radio-activen Substan-
 zen und II. Abt.

B. Zentgraf, I. g. r. t. u. Gremser

Caan por he ex lt mesothor m nil
 thorium X t me nil th mu hod sel
 the meso horn m sel ll t rall
 the meso horn m hod sel ll t rall
 pla ppa tust g la ur mu l l l th mu hod
 f d m hung bli son X nil mro rubber
 plates and mm lumin m plates
 mm l er plat and mm lead
 pla t nd ppa tust t the sec ndary
 ra manufing from the l m m plates huch
 t g m t two t the kin most easi
 low h e l l e r of so sheet of al paper or
 m of cotton but ex th t h nd org The
 k l l t g m t be t t l u z t ion of the l tra
 p e t t a g h d but nd g m m a y t be
 use be w t X nd l e t t t l e d
 t ra the saphagae ar poma special natu-
 ment unstruted by (aa nil Zern I
 d l t o t the y m m a t i o n t the mesothor m
 on the t m r lly ther noted at mulation
 t onnect tissue profera son I t ses f
 mesophagatensis by m m m t opening the
 l g e t t be m e a s e t s u h tent b
 l u n g m g m t the mesothor m so nd that even
 solid alu anca could be allowed Th as
 follo l by an m r e se r g h t g l a s e s of
 m g ar m m a t l the b t not on the
 p e r f u l m o d u l e s i n the kin d r a p p e r e d but two
 ar m m o m a n o d l e s o d e the skin up to the size of
 al ut Maligna t tumors f the mouth nd
 m u c o u s m e m b r a n e o f the throat are not suitable
 for mesothor m t e m e n t Thorium X (h a n n e d
 product of mesothor m) is used in physiological
 salt sol t ion nd is injected in the tumor
 int venous or by both methods I injections

mt the t more than m X is sed in f ll strength
 at t e r r a l f a u t l i g h t p e r f e r a b l y i n d i l d e d
 doses I tra nou thorn m injections re u a l
 t cultured l l l proper doses, t h o e l a g o o d
 effect in u m b e o f t u m o r s h h o n k l n o t t h e r
 s e b e s u e r e d I t r a v e n o u s i n j e c t i o n t h e
 thorium X should be sed onl in dil t solutions
 pref r a b l y (act vity usually equals 000,000)
 in o p h i o l o g i c a l s o l u t i o n On the da of
 j e c t i o n t h e p a t i e n t s h o u l d r e m a i n q u i e t
 p o s s i b l e a n d r i n g t h e n e t g a l a y s h o u l d t k
 m d l a v a t r e s a n d e n a m a s o t h a t t h e l a r g e t e s t n e
 m a y b e e m p t i e d m h p o s s i b l e I n o m a
 d t h e t e s t n e t r a c t a p t t p l e r e d s l o c k
 u d t h o m m X s o l u t i o n n d u g a r g e n a s o n l
 i n g W r e n p r f a b l y i n t h e f o r m o f p u l l
 d s e d l H e s s e l H t h s e s p a s t e s n d p l g s
 m a d e t h t h o m m X n d l e t p o d e r t h
 a u t h o r u s e r e d h a n g e m b e r t u m o r s f r o m
 n o m a u l e r t b e l i g h g r a l a t g o u n d a
 The h i o l o g i c a l h a n g e s f o l l o w i n g t h o r i u m X
 j e c t i o n h o w s o p o t e n t h y h a g e s f o m t h o s e
 f o u n d b t h e u s e o f m e s o t h o r i u m I n o t p a t i e n t
 s u f f e r i n g t h t u m o r s b h r e t e d t h
 t h o m m X t p e c t a n t s h e m p r o e m a t t h
 t m o r s h u b 20 p e r t o f t h e s e e x l e d
 t h a l f e c t o f r a d i u m l e c s e f t h e s h o r t
 t e m e t h p a t t h a l b e e n d e r o b s e r v e r t h e
 t h o r p e a k o f t m o r t y d f t o n l n d b e
 t a y t r e s s o n t h e f a c t t h a t m e s o t h o r m n d
 t h o m m X t r e m t d o n o t r e g l a t h e o p e r a t
 t h e r a p y b u o n l p p l e m e n t a r y t t h i l e n
 u n o p e r a b l e s e s t h e r a d i a t i v e t h e r a p y i s t h e o n l y
 m e t h o d w h b c a n b e u s e d l a n a

Freundenthal, Radi m n Aid in the Treat-
 ment of Maligna t Neoplasms. *Internat J*
 Surg t 22 1, 20 By Surg Gynec & Obst.

The thor briefly disc ses the use of radio-acti re
 ul tances the F r e s t c o l d e r y n d H e r t z i a n
 e s n d f e r r e p o r t g i n a b o u t t h e h i s t o r y o f
 r a d i u m c o n c l u d e s a f t e r y e a r s t e x p e r i e n c e t h a t i t
 a c o n d e r t r e m e d i n c e r t i n d i s e a s e s f c o r r e c t l y
 p h e d

I p a t h e l o m a o f t h e k i n i s o e o f t h e m n d t h e
 t h o r b l l e n t i o n t t h e f a c t t h a t X r a y e v e n
 t h o u g h s u e s a l t h e t e a t m e n t a r e n o t t h o u g h
 d a n g e r a n d t h a t r a d i u m i n h i s h a n d s i s m u c h t b e
 p r e f e r r e d H e r e p o r t s a c a s e o f r o d e t u l c e r
 (e p t h e l i o m a) o f t h e m n g o f t h e n o s e n d l i p w h i c h
 h a d g o n e f r o m o n e p h y s i c i a n t a n o t h e r f i n a l l y
 f a l l i n g i n t o t h e h a n d s o f b a r b e r b o c a t e r i z e d
 t c a u s i n g p e r f o r t i o n h u c h n e c e s s i t y t e d p l a s t i c
 o p e r a t i o n t c l o s e t h e d e f e c t T h e m a l i g n a t g r o w t h
 h o w e v e r r e t r e e d a n d m g o f r a d i m f 000,000
 r a d i o a c t i v y a s p p l e d f o r t e n t y - f o u r h o u r s
 t l a t e r r e s p l e d f o r t h o u r s o n t o f f t h e
 u l c e r r a p i d l y h e a l e d d h a e m a i n e d s o f o r f o u r t e e n
 m o n t h s

T w o e t h e r c a s e s r e r e p o r t e d m o n g t h e m n e
 o f s a r c o m a o f t h e t o a l T h i s a c u r e d b y r a d i u m
 a p p l i c a t i o n s a n d r e m a i n e d s o f o r s i x y e a r s w h e n a

recurrence in plying the thumbs beneath the skin presented preliminary operation was advised but refused, and the patient passed from under the a thoracostomy.

In contrast to these cases the a thor reports many failures due he thinks, to the fact that so many of them were very late cases—some even in extremis. When the lymphatic glands are involved a cure by radium is impossible. Secondly the early removal of diseased thusses and the immediate application of radium will lead to a far greater number of cures than by any other procedure.

This immediate application the author believes to be the most important factor. H. A. PORTS.

Aschoff, Krönig and Gauss. The Influence on Deep-seated Carcinoma of X and Radium Rays. (Zur Frage der Beeinflussbarkeit tiefliegender Krebse durch strahlende Energie.) *München med. Wochenschr.*, 93, 12, 317.

By Zentralbl. f. d. ges. Char. f. Grenzgeb.

The authors undertook to study the influence of strong filtered Röntgen and radium rays on deep-seated carcinoma. A number of cases in Krönig's clinic which were treated by the rays were observed for a long time clinically and also the effects of the treatment were controlled by pathologist (Aschoff) post the end by histologic examinations in which not only the composition of the tumor tissue but also the effect of the rays (especially very high doses) were noted for possible injuries of the rest of the organs. The cases examined were an inoperable carcinoma of the stomach, the cervix and the mamma from which extensive microscopic and merous sections were made and the results of utopases given. In addition two other cases of inoperable carcinoma of the portio and mamma which till being treated are being controlled histologically. The following are the results. In the cases X-rayed there was not found in single case complete destruction of the carcinoma thuss but pronounced retrogression of the tumor as attained most markedly in carcinoma of the stomach. At first this as of purely adenomatous character but post mortem only single nests of carcinoma cells in a scarred ground substance were found. In the other cases following regression there was again growth but the carcinoma tissue changed its type to more ripened form of less

malignancy that is, soft pavement epithelium carcinoma of the portio into bony type, tubular mamma carcinoma into pavement celled. An influence is seen on the metastases which are not directly X-rayed. A growth in the sense of distant growth was not noted from which it is concluded that therapeutically it is not particularly necessary to X-ray the metastases locally. As to the injurious effects upon the rest of the body the liver showed definite injury in two cases and the mucosa of the stomach showed changes which probably were due to the treatment while the other organs seem to be able to stand very high doses without injury. The blood picture remained normal with a single exception (transient leukopenia). The examinations showed the possibility of using X-rays for deep cancer without injuring the overlying skin, and that these influenced the tumor markedly. HARTS.

Stewart. Notes from the X-ray Department of St. Bartholomew Hospital. *Arch. Surg. Ray* 19, 3, xvii, 42.

By Surg. Gynec. & Obst.

In experimenting with metals as to their power of giving off secondary rays it was found that metallic silver possessed this quality to such degree that it could be used to advantage as an intensifying screen. Smooth sheets of silver or sheets of copper plated with silver when placed in contact with the film of photographic plates reduced the time of exposure to third or fourth of that required for the plain plate alone.

Since this effect depends upon secondary radiation from the silver rather than a direct effect from such fluorescing material as calcium tungstate, the resultant detail in all the shadows of the plate is much better. The secondary rays produce a rich chemical action upon the plate and are able to pass through such minor obstructions as particles of dust. The plates obtained are therefore free from the granular defects and dust spots so generally seen in plates made with the screens now in use.

The degree of intensification is less than is given by calcium tungstate which reduces the time of exposure much more than the three or four times claimed for silver. The silver screens are therefore of greatest use in the radiography of subjects where the utmost speed is not essential but great clearness and detail are required. HARTS & PORTS.

GYNECOLOGY

UTERUS

Cary, Chorio-epithelioma; Recurrence Three Years After; Invasion of the Spinal Canal; Villi in the Secondary Growths. *Surg. Gynec. & Obst.* 93, xvi, 35. By Surg. Gynec. & Obst.

The author presents a case of chorio-epithelioma in which secondary manifestations of the disease occurred and terminated fatally three years after complete panhysterectomy as performed.

The case was admitted to the hospital four months after an incomplete abortion during which time she had been cured. On entrance she complained of pain and tumor mass in the left lower quadrant of the abdomen. At operation the uterus was found to be enlarged and thickened, tumor as present in the left broad ligament and in the left ovarian veins. These tumors were ery, macula and bled easily. A radical operation was done and the patient was discharged from the hospital in good condition.

The patient was re-admitted to the hospital just three years after her previous operation. This time complaining of pain in the back and hips. Her condition grew steadily worse and she developed paralysis of the legs and involuntary miction and defecation, the severe pains disappearing. A full moon the chest soon appeared with moderate dyspnea and she coughed up some bright red blood at intervals. During this time the respirations ceased and the patient soon after died of exhaustion.

Autopsy showed metastatic nodules of secondary chorio-epithelioma in the lungs, spleen, diaphragm, dura mater, spinal cord, pulmonary arteries, ovaria and uterine vessels and the thoracic duct. The author made careful microscopic study of these various lesions and found villi in sections taken from tumors in the broad ligament, the left ovarian vein and in one instance from a section from the pillars of the diaphragm. None, however, were found in the lungs, here Langhans cells seemed to predominate.

The author takes up the consideration of chorio-epithelioma as it is understood today and quotes:

The true chorio-epithelioma is well defined structure resembling the epithelial covering of villi in the early stages of gestation and placentation, namely Langhans cells permeated and surrounded with syncytium, and plasmolitic masses resembling the syncytial ends of villi. A classification of the different kinds of chorioma after Marchand and Ewing is considered in which the various terms used are correlated so that the tumors may be brought under the heads of typical, atypical or transitional chorio-epithelioma.

It was thought best to classify this specimen as chorio-adenoma, although exception may be taken

to this view on the ground that the integrity of the tissue carrying the extensive secondary growth and the fatal outcome of the case are typical.

Next the author discusses the unusual conditions in his case as contrasted to conditions found by other authors, namely the presence of villi in the secondary tumors, recurrence 3 years after radical operation and metastases in the spinal canal.

In conclusion he states: One could be justified in calling this case chorio-adenoma with malignant tendencies. It represents what Ewing terms potential malignancy for both the clinical and histological picture is that of rather benign chorioma. This benignity lasted for nearly three years when malignancy appeared as shown by the fatal termination from general metastases in which contrast to the earlier tumors growths consisted of containing many Langhans cells with mitotic figures, necrosis, thrombosis and leukocytic reaction. These latter Ewing considers the essentials of malignancy.

Abel, Electrical Coagulation in the Surgical Treatment of Cancer, Especially of Uterine Cancer. (*Die Elektrokoagulation bei der harnungenen Behandlung des Krebses, speziell des Gebärmutterkrebses.*) *Arch. f. Gynäk.* 93, 1, 304.

By Zentralblatt f. Gynäk. Geburtsh. u. Gynäk.

We must endeavor to perfect the surgical methods to such degree that recurrences if possible will not occur after cancer operations. If we succeed in completely destroying the cancer tissue before it is removed from the body so that we are enabled to work on completely immune tissue we may then hope to prevent those recurrences which result from dissemination of cancer cells during an operation. Such complete destruction of tissue may be attained by the use of electric coagulation, diathermy, and galvano-electricity and Zeynek, A de Forrest needle is used in place of one of the electrodes and the cautery needle replaces the knife. Blood and lymph vessels become coagulated and closed unless hemorrhage takes place. The author operated vaginally in clinically favorable cases by this method no reaction occurred. The tissues are destroyed with the exception of small pieces in the fimbriae, and gave the appearance of having been cooked. An improvement in the technique is only necessary to destroy all invaded tissue without leaving any remnants. Operating according to this method is not very easy but the operation need not be much lengthened by the diathermy. In the reported cases it lasted 30 minutes. The author requests surgeons and gynecologists to test the method.

Schumm.

McDonald The Treatment of Fibroid Tumors; with Report of 700 Cases. 1st. Ed. 93, dis. By Surg. Gynec. & Obst.

The author has presented a series of 700 cases which have been worked up microscopically. The cases have been studied from the point of view of age and its relation to cancerous changes and degenerations and the tables tell their own tale.

TABULAR ANALYSIS OF AGE, COMPLICATIONS AND DEGENERATIONS OF 700 FIBROID TUMORS

T M 1 Character of Tumors		No	%
Single		38	34
Multiple		46	66
Small, pt 4 m		57	36
Medium, 4 to 8 cm		300	98
Large, above 8 m		34	33.5
Subserous		36	9.5
Internal		90	7
Submucous		75	7
Combined		290	47

Table 2 Degenerations and Malignant Changes

(A) Degenerations of Tumor		No	%
Hyaline		7	8
Calcereous		65	9
Cystic		20	3
Hemorrhagic		14	
Necrotic		57	8
Adenomyoma		3	1

(B) Associated Malignant Changes

		N	%
Adenocarcinoma		20	9
Squamous carcinoma		6	8
Sarcoma			
Chorioepithelioma malignum		3	3
Total malignant changes		35	5

T M 1 Complications of Tumors

		No.	%
Ovarian cysts		53	7.5
Cystic ovaries		4	20
Ovarian fibroma		8	
Ovarian carcinoma		5	
Salpingitis		94	7.5
Appendicitis or perispermicitis		18	

Table 4 Age of Patient

Age	N	%	Age	N	%
20-3	7		50-60	95	3
30-4	31	31	60-70		5
40-50	33				

T M 5 Relation of Age to Degenerations

(A) Year		%	(E) Squamous Carcinoma		%
Age			Age		
20-3		5	20-30		
30-40		7.7	30-4		4
40-50		5	40-50		3
50-60		9.3	50-60		2
60-70		20	60-70		4.6

(B) Calcereous Degeneration

Age	%	(F) Sarcoma	%
20-30		20-30	
30-40		30-40	
40-50	6	40-50	6
50-60	4	50-60	3
60-70	1	60-70	9.5

(C) Hyaline Degeneration

Age	%	(G) Chorioepithelioma	%
20-30		20-30	0
30-40		30-4	
40-50	16.8	40-50	0.6
50-60	6.6	50-60	
60-70		60-70	

(D) Adenocarcinoma

Age	%	(H) Total Malignant Tumors	%
20-30		20-30	
30-40		30-40	
40-50	3.6	40-50	5
50-60	6.3	50-60	7
60-70	9.5	60-70	5.8

A topography

Heart lesions and topography

A consideration of this table shows that the older patient the more danger from the fibroid tumor. The older the patient the greater probability there is of malignant changes and other dangerous degeneration, such as necrosis. This shows that the menopause does not relieve the patient from danger from fibroids as from the hemorrhage. Other and more dangerous complications remain and increase in degree with each succeeding year.

The consideration, therefore of this series of fibroid tumors warrants the following conclusions:

The menopause does not bring cure to fibroids; the contrary increasing age increases the danger from these growths.

There is little danger of malignancy arising in fibroids before the fortieth year of the patient after which time the danger increases with each year.

In view of the sarcomatous changes, carcinoma, atypical associations and other degenerations of uterine fibromyomas, early removal is indicated when they are of sufficient size to produce symptoms and cause the patients to seek advice. Small uncomplicated fibroids in young women do not require early treatment.

Thorough pathologic examination should be made of all fibroids for evidence of malignancy. The tumor should be opened at the time of operation and examined for adenocarcinoma or sarcoma. Particular study should be devoted to those tumors which are necrotic, cystic, or both as among these are found the largest proportion of malignant changes.

In view of the large percentage of inflammatory changes in the Fallopian tubes and appendix, these should be examined at the time of operation and removed, if diseased.

Ernest C. C.

Smith and Shaw. Red Degeneration of Uterin Fibromyomata. *Proc. Roy. Soc. Med.* 93, 1, 3.
By Burg, Gynec. & Obst.

The author divides the terine fibromyoma of a red color into two pathological lesions thrombotic and angiomatous. It briefs in their microscopical appearance. The thrombotic tumor very soon commences to degenerate and makes dead medium of the growth. Fibromyomata. The symptoms accompanying the growth of terine rapid enlarging tumors are abdominal pain and temperate and general debility. It is either single or multiple in the angiomatous more abundant blood. The author with a history of the blood vessels and with no clinical symptoms except hemorrhage and feeling of globular pelvis. R. F. C. Moore.

Von der Hoesen. Myoma in Uterine Hemorrhages (Mammom in Menstruelle Blutungen). *Vierteljahrsschr. f. prakt. Gynäk. u. Geburtsh.* 1901, 1, 100.
By Zentrall. f. d. Gynäk. u. Geburtsh. d. Grenzgeb.

In connection with the public opinion in Germany the author reports his experience in myoma. It is much less than in the cases of myoma. It has occurred in women between 34 and 40. It had only one good result in four cases of hemorrhage of the uterus and polypus and one case of perimetritis hemorrhage. The results of the operation. It had one permanent success in girl. The extension of the tumor of the uterus in the dysmenorrhoea. Three cases of myoma. He had no results total 3 cases. It only 1 of the results. It has gained the connection with the treatment of myoma malignant degeneration. It is all as to be excluded and long diagnosis. It is very frequent thus rendering operation. It is exceedingly doubtful. It reports 12 cases. It has been 1 practitioners and gynecologists had diagnosed myoma. At operation cyst ovaria embryomata. As found three times, ovarian cancer and intestinal carcinoma once. Three of these patients, therefore, must be considered as martyrs to exaggerated conservatism treatment.

Sta. 17

Parhamoff. Clinical Observations on the Action of Hyemastil in Uterine Hemorrhages (Klinische Beobachtungen über die Wirkung von Hyemastil bei Uterinblutungen). *Frank. Gaz. St. Petersburg* 93, 1, 100.
By Zentrall. f. d. Gynäk. u. Geburtsh. d. Grenzgeb.

The remedy as used in forty cases. Eleven cases of endometritis post-abortum. The remedy proved successful three times. These curettage produced remnants of the abortion. In 3 cases of endometritis hemorrhagica one negative result. As bled. The hemorrhages decreased in two cases of myoma and ceased completely in nine cases of salpingo-oophoritis, three cases of para and perimetritis, one case of functional hemorrhagia and one case of incipient border. Other hemostatic

remedies are given without success. Some of these. The dose recommended is 4 to 3 tablets of 0.5 gm each. H. W. C.

Rieck. The Therapy of Marked Menorrhagia (Zur Therapie alarmierender menstrueller Blutungen). *Deutsche Med. Wochenschr.* 93, 1, 187, 637.
By Zentrall. f. d. Gynäk. u. Geburtsh. d. Grenzgeb.

After mentioning the various drugs used in the treatment usually severe menorrhagia, well as the various medical and surgical procedures the author describes an operation which he calls fundatio which decreases the menstrual flow. It is marked by free. The operation is not disturbed by this operation, making the method applicable in all younger women. The operation consists in decreasing the bleeding surface. The operation is not painful and so that it is not a very long one. It is one half of the uterus is left. The operation is not without danger. It is patient. By the same technique peritoneal incision is eliminated. The loss of future child bearing is avoided. It is a very high. It makes the method impracticable.

The operation is only in those cases of hysterectomies. It is not done and those who have other methods have failed. Brown.

Carstede. Dysmenorrhoea. *Clench. M. J.* 93, 3.
By Borg, J. de. & J. de.

The author describes the different forms of dysmenorrhoea. It is dependent on women. It is defined as three degrees of obstruction. It is the obstruction of the endometrium or of the myometrium and of the cervix or atrophy. These obstructions are mechanical. The time is based on the physiological process on the symptom and the local conditions present. It recommends 6 grains of ergotine. It is used for several months. Locally it is used. It varies from being removed. It must be removed. It is surgical. It is not, and it is only to be treated. It overcomes flexions and it develops the terine muscles. He employs dilatation of the cervix. It is the production of stem pressure. Dilatation is performed under general anesthesia. It should be employed only when the disease condition is limited to the uterus. Finally he gives a description of the technique of the insertion of the stem pessary. Its beneficial action induces the development of the uterine muscle. It overcomes existing flexions. It establishes normal and regular menstruations and cures sterility. If the stem pessary also tends to drop out of place it may be retained by the use of a Hodge pessary. The stem pessary can be worn for years with impunity. H. W. C.

Twenty. Polypus Complicating a Version of the Uterus and Illustrating the Difficulty of Diagnosis. *J. Obst. & Gynec. Br. Emp.* 93, 1, 100.
By Sarr, Gynec. & Obst.

The case is in the proceedings of the Royal Academy of Medicine in Ireland, December 9.

The patient was far advanced in anemia and shock. She was half witted and her condition so serious that the vagina as kept plugged for eight days while ergot and stimulants were administered. A round tumor was found protruding 1 1/2 inches from the vulva, which bled easily. The cervix could not be felt. Under anesthesia and bi-manually the protruding mass was made out to be an inverted uterus with pedunculated myoma. This tumor as removed and in so doing cyst was opened containing fluid under great tension. There as severe bleeding for time from the ovum. The uterus was readily replaced by application of three bullet forceps.

CARE CULBERTSON.

Frank Contra Indications to Curetting. *N Y M J* 93, vol. 808 By Surg., Gynec & Obst.

The author bases his observations on 3000 consecutive cases taken from his dispensary records in which careful not was made of the number of curettings and the reasons for their performance. Of these cases more than one patient out of every five had been curetted at some time. He divides his observations under the following headings: (1) abortion—induced and spontaneous (2) post abortive conditions (3) post partum conditions (4) ectopic gestation (5) parametritis and adenitis (6) so-called endometritis, including leucorrhoea (7) menorrhagia and metrorrhagia. He comes to the following conclusions: Curetting in class is hardly ever necessary unless profuse hemorrhages, resisting usual treatment demand curative interference. In the long run more patients will be saved by no interference than by even the lightest curetting. Post-abortive bleedings usually disappear after non-operative treatment. In post partum conditions, also curetting is never necessary. If placental tissues are retained they should be removed manually. Whenever the slightest shadow of doubt exists ectopic gestation, it becomes imperative to avoid curetting and to wait further developments. In dysentia and parametritis with menorrhagia curetting is never advisable unless it is immediately followed by further operative work on the uterus. Endometritis is rarely benefited by curetting. It certainly does not improve leucorrhoea which is usually of cervical origin. Sterility also could not have been relieved by scraping if the dilatation of the cervical canal had not preceded it. Ovarian disturbances play more important rôle in female sterility than suspected abnormal conditions of the uterus.

However in pre and post-climacteric hemorrhages, in menorrhagias and metrorrhagias, abrasion is also indicated for diagnostic purposes and the scrapings must be subjected to microscopic examination. The result will determine the character of further treatment. The use of curett is rarely necessary in abortion practically never after labor harmful in pelvic inflammation, then fatal in ectopic gestation. The instrument is of value mainly for diagnostic purposes.

HENRY SCHMIDT

Wilcox The Underdeveloped Anteflexed Uterus and the Sterile Woman. *J Am. Inst. Homoeop.* 913, 583. By Surg. Gynec. & Obst.

The author gives his views as to the cause, result and treatment of the above condition. He bases his theory for the cause on an embryological factor namely a developmental defect at the point where the cervix joins the fundus. This causes an angle to be formed at the junction which results in: (1) more or less closed cervical canal (2) the internal os and, (3) a fundus shut off from its normal blood supply and atrophy.

In considering the uterine ligaments, Wilcox believes that the utero-sacral ligaments, if congenitally short, may by their attachments at the junction between the fundus and cervix cause this acute ante-flexion.

The author believes that treatment should be begun early when the young girl is just entering womanhood, and the symptoms are usually dysmenorrhea, or membranous dysmenorrhea. In treatment, first the uterine canal must be opened up to establish free drainage and straighten out the acute angle. The uterus is next packed twice for periods of 48 hours. Then for months, dilated twice.

Next then for 3 months, every other week. Next electricity and bimanual massage may be used to stimulate the growth of the uterus and the latter to stretch the tense ligaments. The duration of treatment should occupy about 3 years.

EDGERT CAR

Delle Chiave The Relaxation of the Cervix in the Surgical Treatment of Ante-flexion of the Uterus (Lo scioglimento cervicale del collo nella cura chirurgica dell'antiflessione uterina). *Arch ital. di ginec.* 93, 271, 39.

By Zentralbl. f. d. ges. Gynaek. u. Geburtsh. d. Oestreich.

The author performs Pozzi's matoplastic procedure in ante-flexion and dysmenorrhea. In twelve cases dysmenorrhea disappeared, sterility disappeared in two. The operation does not act by the removal of the obstruction to the menstrual blood, the author denying the mechanical theory of dysmenorrhea, but by improving the circulatory conditions in the cervix and thereby also the corpus, so that abnormal contraction and blocking during the premenstrual period is diminished.

MATTHEWS.

Griffith A Discussion on Ventrofixation; Its Indications, with Analysis of 77 Cases. *Proc Roy Soc Med.* 93, vi, 87.

By Surg., Gynec. & Obst.

Griffith reports in detail seventy-seven cases of uterine fixation to the abdominal wall, though five were really suspensions, four by the Gilliam method and one by that of Webster. His method of fixation consists in passing two silk suture threads deeply into the anterior uterine wall, beginning just below the attachment of the round ligaments. Both ends of each suture are brought through the peritoneum rectus, and anterior sheath at distance above the

pubes, chosen in each case according to the degree of prolapse of the uterus and laxity of the abdominal walls. These sutures are buried in closing the laparotomy wound and have given no subsequent trouble. In cases seen, he has found close and firm attachment without any fundal or other pedicle. Griffith considers this method an operation of choice in the varieties of cases.

Those in which the supports of the uterus are sufficient to maintain it at or nearly at its proper level in the pelvis, but in which retroversion or retroflexion of the body of the uterus and adjacent broad ligaments, leading to prolapse of the ovaries, is the cause of serious discomfort.

The cases in which prolapse of the uterus broad ligaments and ovaries is considerable, and is associated with varying degrees and forms of vaginal, vesical and rectal protrusion. CAUSEY COLLEGE.

Giles. The After Results of Operations for Uterine Displacements. *Proc. Roy. Soc. Med.* 93, 91. By Surg. Gynec. & Obst.

Giles limit his reports to the after-results of specific abdominal operation, hysterectomy. By this term he means neither ventrofixation, or oophorectomy nor ventro-suspension, rarely done, but rather an operation whereby the sutures are passed each side of the incision through the fascia and peritoneum and through the anterior wall of the uterus as low down as possible, leaving the fundus free to expand in the event of subsequent pregnancy. He discusses the after-results in five paragraphs.

(1) Eighty per cent were better generally as well as locally; ten per cent more they are improved locally at least.

(2) The bladder shows disturbance in the form of frequent micturition in some cases, but 73 out of 86 had no trouble, being once off than before operation.

(3) Of the 5 cases under review 74 are married women under forty years of age. Of these twelve became pregnant. Eight of these have been confined all spontaneously, but two, who were aided in the second stage by forceps. In this group there have been no miscarriages though in former group not previously reported there were 6 abortions and 44 full term pregnancies out of 60. In another group of ten confinements following operation, all were spontaneous. As result of these observations, Giles claims that hysterectomy causes no complications during pregnancy or labor.

(4) The effect of pregnancy on the results of the operation shows that of total 137 patients examined after total of 48 confinements at term, in but one as there partial return of the displacement. This is no greater (2.7 per cent) than in those cases not followed by pregnancy. One patient had had a subsequent labor and another had had three.

(5) The proportion of permanent cures is as follows. After retroversion in 1 cases, the uterus remained in good position, as partially displaced

in three and seven gave a total failure. After prolapse 36 cases remained cured, or 100 per cent. After procidentia, in 50 cases the results were good, no showed partial recurrence and three were failures. In 341 cases, therefore 337 or 95.9 per cent, were successful four or 1.2 per cent gave only imperfect results and 0.9 per cent were failures. CAUSEY COLLEGE.

Briggs. The Technique of Ventral Fixation of the Uterus and Allied Operations. *Proc. Roy. Soc. Med.*, 93 vi, 76. By Surg., Gynec. & Obst.

Briggs emphasizes the importance of fixing the uterus to the parietal peritoneum alone and that by the anterior uterine wall only. He employs twisted silk and puts the lowest suture at the summit of the bladder the higher ones somewhat laterally so that broad area of the uterine wall is fixed. He agrees with Kuster that mobility with fixation is desirable, and favors this method because it effects (1) minimum strain on its own products (2) rest and recuperation for the already weakened natural supports of the uterus (3) accurate anatomical adjustments for post-operative pregnancy and labor. The after histories of 597 survivors, out of 600 operated upon, have been systematically obtained and recorded. The present estimate is that in 98 per cent of the cases the ventral fixation permanently rectifies the retroflexion. In large number of cases the subsequent pregnancy natural labor has been the rule and easy forceps delivery the exception. In few cases, retroflexion recurred after labor and few of the earlier cases also recurred where the technique had not yet been perfected. Finally the author emphasizes the importance of an adequate pelvic floor as platform of support considering this the primary security for a reasonable ventrofixation. CAUSEY COLLEGE.

Leonard. Post-operative Results of Amputation of the Cervix. *Surg. Gynec. & Obst.* 93, xvi, 390. By Surg. Gynec. & Obst.

An analysis of the post-operative results of the cases of amputation of the cervix performed in the Gynecological Clinic of the Johns Hopkins Hospital was undertaken to determine the efficacy of the operation as curative procedure and its effect if any upon the subsequent marital history. Complete post-operative reports were obtained in 18 cases upon which this analysis is based.

General Health. The patients were divided into three groups according to operation and the effect on the general health tabulated.

Group	No.	Improved	Same	Worse
Amputation alone	17	10 or 58%	7 or 41%	0 or 0%
With Parametrectomy	1	1 or 100%	0 or 0%	0 or 0%
With Abdominal Section	0	0 or 0%	0 or 0%	0 or 0%

About 9 per cent of the entire series reported improvement in the general health.

Leucorrhea. Of the 8 cases, 99 had leucorrhea before operation. Sixty-eight cases reported cure (6 per cent) and in thirty-three cases there

where cancer had not first been proven and where it had been suspected in several only.

LARRY COLUMBSON

Ostrom: A Cradle Suture for Holding the Uterus in Ventro-Suspension. *North Am J Obst.* 93, xxvi, 99. By Surg. Gynec. & Obst.

The author describes here the method he uses in doing ventral suspension of the uterus. The sutures he uses are cut in the long axis of the rectus muscles then first introduced then transversely to their fibers when tied.

With the fundus held up in position a heavy needle threaded with silk worm gut is carried down through the rectus muscle three quarters of an inch from its medial border and after taking good bite in the uterus is brought up again in the same rectus one inch higher up so that the two ends of the suture lie in the longitudinal plane of the peritoneal opening. The same procedure is followed on the opposite side and after the closure of the peritoneum the silk worm-gut sutures are tied cross the line of the closure thus forming a cradle-like uterine suspension.

The author states that in several years experience with this method he has never failed to get permanent fixation and that the buried suture material has never caused any inconvenience even made its presence known. C. D. H. Lutz

F. thegill: Clinical Demonstration of an Operation for Prolapsed Uteri Complicated by Hypertrophy of the Cervix. *Brit M J.* 93, 4, 76. By Surg. Gynec. & Obst.

The author emphasizes the objection to the classical operation, as it shortens the anterior vaginal wall and the uterus is left in a retroverted position which favors recurrence. His modification of the anterior colporrhaphy where there is considerable hypertrophy of the cervix consists in dilating the cervical canal and then making a circular incision around the cervix with a knife. The vaginal wall and bladder are pushed back and the cervix is deeply slit laterally into anterior and posterior lips. The cervix is amputated and the bleeding controlled by sutures. The circular vaginal wall is incised about an inch on either side the new cuts going to the right and left. The anterior vaginal wall is separated from the parametric tissues and the bladder and triangular portion with its apex near the urethral orifice is cut away. In closing the incision, the first suture brings together the center of the posterior margin of the vaginal incision and the mucosa lining the posterior wall of the cervical canal. The second and third sutures unite the vaginal wall and cervical mucosa until the vaginal incision comes together in front of the cervical stump. The lateral edges of the vaginal wall are brought together in the middle of the anterior vaginal wall by interrupted sutures from behind forward until the urethral end is reached. The operation is finally completed with the repair of the perineum. R. T. GILBERTSON.

ADNEXAL AND PERIUTERINE CONDITIONS

Graves: Influence of the Ovary as an Organ of Internal Secretion. *Am J Obst., N Y.* 93, 1913, 649. By Surg. Gynec. & Obst.

Graves reviews the knowledge obtained by various means to date and concludes:

Anatomical evidence makes it probable but not incontestable that the ovary is an organ of internal secretion.

Infantilism is not result of ovarian deficiency but is local or general manifestation of hypoplasia constitutio in which the ovary may or may not share incidentally.

3. After sexual maturity the ovary exercises trophic influence over the other internal and external genital organs.

4. There is evidence to show that the ovaries preside over menstruation by an internal secretion which has selective action on the endometrium and that abnormal bleeding may be due to hypersecretion of the ovaries. This evidence is not as yet testable.

5. Transplantation of ovarian tissue has not as yet proved to be of great practical value in the surgical treatment of gynecological patients.

6. Castration of sexually mature women directly causes vasomotor symptoms typified by hot flashes in 86% of cases.

7. Definite psychoneuroses are not directly caused by castration but such symptoms if present are due to other causes that produce psychical or mental pain or discomfort.

8. Ovarian extract is invaluable in the treatment of the vasomotor disturbances following castration. Its value in the treatment of other gynecological conditions is problematical.

N. Spero HAZEN.

Lauriers: Metastatic Sarcoma of the Broad Ligament Associated with Fibromyoma of the Uterus (Sarcome à métastases du ligament large associé à un fibro-myome de l'utérus). *Bull Acad. roy de méd de Belg.* 93, xxvii, N.

By Journal de Chirurgie.

A nulliparous woman of 54 with a large fibroid of the uterus had also a small node the size of a pea which was movable beneath the skin and was situated in the midline in the epigastric region. Lauriers excised this node first and then enucleated the uterine fibroma. In doing this he found a nodular tumor situated at the base of the left broad ligament and not connected with the uterus. By microscopic examination, this tumor and the subcutaneous nodule were found to be similar. They were both spindle-cell sarcomas the nodule being metastatic growth. The patient recovered and was apparently in perfect health, but died three months later from multiple pulmonary metastases. The interesting thing about this case was the coexistence of large benign fibroid of the uterus and small sarcoma of the broad ligament which were different grossly and histologically and in no way connected. L. M. VAN.

McMorrow. Some Old Pelvic Inflammatory Diseases, Their Non-surgical Treatment; with Report of Cases. *J Am M Ass* 9, 3, 1906.
By Surg. Gynec. & Obst.

The author discusses the use of massage in the treatment of selected cases of chronic pelvic inflammatory disease and gives his results. In this procedure in series of cases. He also states that his method is that adopted by the general hospital in Vienna for the same condition.

With the index and middle fingers of the left hand he tenders and supports the cervix by lifting it up, while with the right hand on the abdomen he massages the uterus by series of gentle rotary movements. These movements are performed in

the first time the first treatment and if no improvement follows in the next day or two he continues the same treatment for three to five weeks. If the patient is relieved of her symptoms. He states that even in patients with rigid bimanual, the posterior wall of the uterus may be massaged and retroverted uterus put in good position by gradual stretching of the round ligament band and lengthening of the broad ligament. Better manual tone is thus obtained. Improved excretion and circulation. The best results with this method is pelvic inflammation, chronic perimetritis and parametritis but that pelvic massaging is isolated use and is in the inflammatory condition. It is not possible to collect the uterine contents of pregnancy or to bore an incision.

He reports his series of cases chiefly to be bimanual condition with the diseased tissue drawn into the hand and how they may be released by massage.

In the last series of cases he states that he has succeeded in relieving the symptoms of backache and general pelvic tenderness, two that he has been unable permanently to establish normal menstruation. Patients who have been troubled with painful periods and small amount of menstrual discharge.

EXTERNAL GENITALIA

Bandelier. Vaginal surgery. *N Y M J* 9, 2, 1906.
By Surg. Gynec. & Obst.

A tensor colpotomy, posterior colpoanterior biph and vaginal hysterectomy with the other modifications and illustrations of cases are described. He also states that incision for the purpose of complete separating the bladder from the anterior vaginal wall and cervix so that it is practically free except its attachment to the uterus and uterus thus rendering the pelvic cavity more accessible. He uses the tensor colpotomy to perform vaginal fixation, remove fetal gestations or suppurated uterus, lower the cervix or to remove it entirely. He narrows the men of the vagina by high colpoanterior biph and resection of most of the posterior vaginal wall. He then sutured lateral

anal muscle suture and fixes the upper part of the newly made posterior vaginal wall to the upper border of the newly sutured levator ani muscles. He also erects in the middle of the posterior vaginal wall transverse fascial and muscular wall which keeps the cervix up where it belongs. This is an essential point in the permanent cure of prolapse.

Bandelier advocates the use of lamps in vaginal hysterectomy under the following conditions: whenever haste is desired or the uterus is very long and broad ligament retracted. Here the broad ligaments are infiltrated with morcellement irrigated area of tenne tissue is left attached to the broad ligament or here the fundulo-pelvic ligament is sutured. At the conclusion of the operation the vagina is packed with gauze in such way as to surround the clamps and to prevent them from pressing against the vaginal walls and perineum. The lamps are supported by silk straps of adhesive plaster attached to the thighs. After the legs have been extended. This also prevents them from pressing the external genitalia. The clamps are removed at the end of 36 to 48 hours without disturbing the patient from her bed. He. Schmitt.

Robb. Examination of the Pelvic Organs in Doubtful Cases Through Vaginal Incision. *Cleveland M J* 3, 11, 1906.

By Surg. Gynec. & Obst.

The author refers to the difficulties encountered making correct diagnosis by bimanual examination. Considering the dangers of an exploratory laparotomy he advises exploration through

incision the posterior vaginal wall and illustrates the correctness of his procedure by the histories and vaginal explorations of 6 cases. If indications exist he immediately follows the vaginal exploratory operation by laparotomy.

His conclusions are as follow. If doubt exists as to the necessity of abdominal operation explore the pelvis through incision the posterior vaginal fornix. Many unnecessary abdominal operations will be avoided by this procedure. Here as often times marked inflammatory condition will be made out which otherwise would have escaped our notice and which indicates necessary operation.

Another feature is that different structures can be separated through posterior colpoanterior thus doing away with the necessity of an abdominal operation altogether. Heavily Schmitt.

Mittelman. Gonorrheal Vaginitis Treated by Vaccine. *Med Press & Circ* 9, 2, 1906, 385.

By Surg. Gynec. & Obst.

The author reports six cases of gonorrheal vaginitis of which he used vaccine treatment. Four cases cleared up uninterrupted from the beginning of treatment, the other 2 improved, but some relapsed. One of these finally seemed perfectly cured the other is under treatment. He believes that the best results follow the use of

vaccines from new cultures and that one should begin with a dose of 4 or 5 million and increase to a maximum of 10 million for adults—and a smaller dose for children. He is impressed with the results shown and expects to continue in future cases. Great care as employed in establishing the diagnosis in each case. C. H. D. v.

Lothrop. An Operation for the Cure of Vaginal Hernia. *Boston M. & S. J.* 9, 3, div. 578.
By Surg. G. W. & Obst.

The author reports an interesting case of vaginal hernia and gives the technique of his operation. The patient had twice before been operated for supposed rectocele. The hernia sac contained small intestine.

Technique of perineal. The patient was placed in the Trendelenburg position and the abdomen opened by median incision the intestines then being packed with long wet gauze strips. The broad ligaments are divided close to the uterus, the anterior half of which was removed down to the cervix the uterine canal being included in this excised portion. The broad ligaments remaining half of the uterus are sutured later to help form support to the floor of the pelvis. The peritoneum was dissected from the lining of the sac and deeper portion of the pelvis. A transverse incision was made at the level of the cervix and just behind it and continued in front across to either side of the pelvis. The posterior edge of the peritoneum was then dissected up and the stripping continued until the rectum and the floor of the pelvis are exposed. The vaginal all was then pushed down out of the vagina. A pelvic floor was made by suturing with chromicized catgut the broad ligament stretched horizontally across the pelvis and overlapped. The remaining half of the uterus was tilted back over the ligaments, and its two free corners sutured to the pelvic fascia on either side of the rectum leaving just room for passage of the rectum. The peritoneum was closed over this new floor and the abdomen closed. The excess of tissue of the vagina was removed as in the ordinary splitting operation for rectocele. The patient was kept in bed four weeks. From the result as seen three months later the author believes the vaginal hernia is cured. C. H. D. v.

Buiford. Large Urethral Caruncle in Girl of Nine Years; A Preliminary Report with Summary of the Subject. *J. Am. M. Ass.* 9, 3, 17.
By Surg. Gynec. & Obst.

Buiford reports the case of a girl aged nine years who was admitted to the hospital in May 9. One year previously she had fallen down stairs while roller-skating. Ten days after the accident the mother discovered that there had been bleeding about the vulva, and on examination found in the region of the urethra a mass about the size of the end of her thumb protruding from the labia. During this year the size of the tumor had not changed,

though it had been treated by a number of physicians. A purulent discharge was always present but there was no itching and no discomfort or urination. The tumor-base extended almost all over the circumference of the urethral canal and up into the urethra for about a quarter of an inch. The surface was not eroded, and there was no tumor of the bladder. No pus could be expressed from the Skene or Bartholin glands. A purulent discharge from the urethra kept the parts moist. Vaginal smears were negative for the gonococcus though they were found later. The tumor was excised well outside of its borders and the surrounding skin drawn into the meatus and stitched with horse-hair. Primary union took place and there had been no recurrence up to November, 9.

The author refers to the complete bibliography of Williamson and Alter for the literature on this subject.

These tumors are covered by epithelium are usually about the size of a split pea, may be pedunculated or flat-based and are usually located on the lower half of the urethral orifice. They occur more frequently in multiparae and are rarely large in girls. Some cause pain of a severe nature, others are devoid of sensation.

Their etiology is uncertain, though the retention of droplets of urine in the urethral canal with the resulting irritation and tissue changes is probably a factor in their development.

The most satisfactory treatment of this condition is complete excision well outside and below the tumor. If they are not completely removed they tend to recur. C. D. Hoar.

MISCELLANEOUS

Ketmaier. The Etiology of Gynostreles (Zur Ätiologie der Gynostrelen). *Beitr. z. Geburtsh. u. Gynäk.* 9, 3, 16, 37.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynägeb.

Partial atresia are congenital or acquired. The postnatal causes have not been proven in numerous instances. Kossmaul's theory that an inflammatory adhesion and obliteration is untenable. The belief that hymenial atresia is congenital is tenable, but how is it to be explained? The author assumes that at some time during the fetal life certain cells undergo coagulation necrosis as result of some chemical influence thus the part depending on those cells is retarded in its development. Either a stenosis or an atresia is seen, depending on the grade of development of Müllerian ducts.

The size and character of the hematomas of the thickening and irregular formation of its walls, all speak for an excessive growth of the internal genitalia above the atresia. A hydrocolpos develops first and gradually changes into a hematomatous condition on account of the marked exfoliation and secretion of the hypertrophic mucous membrane. By adaptation it surrounds the development of large tumors can

occur with any clinical phenomenon. Atresias are frequently accompanied by hematosalpinx. It is almost always associated with torsion of the abdominal tubal ostia and dependent on peritoneal adhesions. A genuine infection is not to be assumed although the content of the hematocolpos, gaining entrance to the abdominal cavity through the tube, will set up an irritative peritonitis. The variable size of the tube is low and high atresia is explained as being the result of excessive growth of this organ with the formation of hydrosalpinx. *Mason*

Beil: Genital Functions of the Ductless Glands in the Female. *Lancet*, Lond., 93, 809.
By Surg., Gynec. & Obst.

This is the first of two lectures on the subject. The author believes that should look upon all the ductless glands as genital glands, as each is absolutely indispensable to the harmony of the genital functions. From his study of the ovary in various animals he draws the provisional conclusion that, if the corpus luteum be an organ of internal secretion, such assists in the implantation of the ovum; the importance of it varies with different species and probably it has more than one function.

He made careful study on cats of the effects of oophorectomy on general metabolism. In study of the rat it was found that while the specific gravity remained nearly the same after operation the calcium secretion was diminished by half, the chlorides were slightly diminished while the phosphorus excretion, total nitrogen and urea percentages were much increased. This supports the belief that the ovaries take an active part in promoting the excretion of calcium especially in connection with menstruation and explains why oophorectomy may aid in the cure of osteomalacia. The differences in the effects of oophorectomy in women are he thinks due to the individual variation between the dysfunctions of the internal secretion. Oophorectomy causes more marked reaction in rodents than in other mammals. In his cats he found the thymus larger after oophorectomy than in the normal adult animal. He believes that the pituitary body must be considered as *ovary* and not two. The effects of oophorectomy on the pituitary are more or less temporary and in no way comparable with the genital lesions seen after partial removal of this gland. These effects are not comparable with those found in pregnancy.

Total ovarian insufficiency arouses increased activity in most, if not all of the other ductless glands. *C. H. D. vs.*

Beil: The Genital Functions of the Ductless Glands in the Female. *Lancet*, Lond., 93, 809.
By Surg., Gynec. & Obst.

The author has in this lecture considered the effect of removal of the various ductless glands, other than the ovary on the remaining members, and the general metabolism in so far as it is directly related to the genital functions.

He believes that rodents have less need of the thyroid than other mammals, such as the carnivora, and that this is due in some measure to the variations in the structure and function of the other ductless glands. His experiments on pregnant cats are in favor of the possibility that in the latter half of pregnancy the secretion of the fetal thyroid may be conveyed to the mother. He does not believe that the thyroid is in any way specifically connected with the production of eclampsia. Thyroidectomy calls for response from the ovary just as oophorectomy from the thyroid. The nature of this response brings forth evidence that the granulosa cells of the Graafian follicle form an organ of internal secretion. The uterus atrophies to considerable extent. Thyroidectomy stimulates the suprarenal cortex to excessive secretion, and this no doubt tends to produce calcium retention and to prevent excretion. It causes an increase in the secretory activity of all parts of the pituitary body.

The pineal gland has never been successfully removed from mammals, so the only direct evidence is that obtained clinically. A few years ago the author with Dale and Dick, showed that extract of posterior lobe produces powerful uterine contractions. The observations after partial removal of the pituitary are very confusing and the author believes that these can only be dispelled by considering the entire gland as one organ.

It appears that the thymus either inhibits the development of the ovaries (Bledl) or that their development follows the withdrawal of the thymus secretion. Little is known concerning the relation of the thymus to the general metabolism.

In most mammals complete removal of the suprarenals causes death in from a few hours to a few days but with the unilateral removal the author obtained some interesting results with regard to metabolism in the rabbits. In one, the average quantity of calcium excreted after operation was seven times as great as before, and in the other it was sixteen times as much. The phosphorus was much increased but not in the proportion one might have expected. The urea as increased out of the proportion to the difference between the specific gravities. A study of the pituitary body appeared to indicate that an attempt is made to counterbalance the loss of adrenin by the rapid production of infundibulin. There appeared to be no histological changes of importance in the ovaries, but there was evidence of muscular trophy in the uterus.

The ovary is only concerned in the temporary function of reproducing the species, and by its hormones, or internal secretion of bending the metabolism of the body to its purpose. When the reproductive functions cease and the ovaries atrophy to the menopause the harmony that previously existed between the general and the genital metabolism is temporarily deranged, and various disturbances may ensue. And it is only by the careful investigation of each menopausal case that one can arrive at determination of the manner in which

the balance has been lost. Some patients react to thyroid extract, some to pituitary, others to combinations so great are the individual variations. In most cases, natural readjustment takes place in the course of time. C. H. D. via

Smith: The Prognostic Value of the Leucocyte Count in Pelvic Suppurative Conditions. *Surg. Gynec. & Obst.* 9:3, 211, 403.
By Surg., Gynec. & Obst.

The histories of one hundred unselected cases of pelvic suppurative conditions of various kinds are tabulated. All of these leucocyte counts had been made as routine procedure upon the admission of the patient. These preoperative leucocyte counts are tabulated in their relation to the postoperative progress of the patient as regards temperature, pulse, complications, secondary operations, and the like. The question is raised as to whether or not the leucocyte count furnishes better basis for the establishment of prognosis than the case that does the temperature, the pain, and the like. Where the leucocyte count is high upon admission even though the temperature was low, the patient was shown to have a fairly complete abscess nearly as frequently as when the preoperative temperature was as high but the pulse count low. The same relation though somewhat less marked, 4 times was also seen in the development of other postoperative complications—mortality, rapid pulse, secondary infections, and the like. The conclusion is reached that at least in this group of cases, the leucocyte count was a markedly more prognostic value than either the preoperative temperature or

menstruation and found an enlargement by percussion varying from two and one half to four fingers breadths in nine cases, two fingers breadths in thirty-three cases, one and one half in eleven cases, and no finger in thirty-seven cases. An enlargement was found in two cases. Palpation elicited the same findings. In seventy-three women, the liver was painful, in twenty-four it was sensitive. In three it was normal. The enlargement persisted in three days after cessation of menses. Between the menstrual periods the liver was of normal size.

BRADY

Hirschberg: Thigénol in Gynecological Treatment (Das Thigénol in der gynäkologischen Therapie). *Berlin. Wochenschr.* 9:3, 597.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Thigénol, compared to other sulphur preparations, has the advantages of being odorless and more easily absorbed by the skin and mucous membrane. It is especially adapted for tamponing, using a 20 per cent solution of thigénol in glycerine. The tampon must be changed every other day. In the meantime vaginal irrigations are ordered composed of tablespoonful of thigénol solution in one liter of warm water. Thigénol proves which dissolve easily the vaginal secretions are especially useful for the general practitioner. The preparation has also beneficial results in cases of subacute and chronic inflammations of the pelvis connected with the adnexa and the pelvic peritoneum. The preparation subdued the inflammatory infection and increased the resolution was absorbed and abscesses of the pelvic organs gradually disappeared. Tampon treatment is contra-indicated in recent inflammations and purulent catarrhs. L. H. CR.

Alpert: Reflex Pains on Pressure of Cervical Plexus in Inflammations of Female Genitals. *Rückenschmerzen beim Drücken des Halses bei Entzündungen der weiblichen Geschlechtsorgane*. *Zentralbl. f. Gynäk.* 9:3, 232, 234.
B. Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Alpert examined 500 women whom pressure was applied to the cervical plexus. He comes to the following conclusions: (1) When pain radiates to the epigastrium after pressure on the solar plexus, then the endometrium is involved. (2) When pain radiates to the symphysis, then the parametrium is involved. (3) When pain radiates to the right and left sides, the uterus is involved. (4) When pain radiates to back, there is metritis or fibroids. (5) When there is pain directly under the finger the genitalia are not involved. The findings in 83 per cent of his cases were corroborated on operating. H. H. CR.

Döbelfoff: Enlargement of the Liver During Menstruation. (Vergrößerung der Leber während der Menstruation). *Frank. Ges. St. Petersburg.* 9:3, 232, 430.
B. Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author examined one hundred women and determined the size of the liver during and after

Heilmann: X-Ray Treatment in Gynecology (Die gynäkologische Röntgen-therapie). *Monatsschr. f. Geburtsh. Gynäk.* 9:3, 232, 234.
B. Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

After short review of the development of X-ray treatment in gynecology from the simple method of Albert-Schönberg to the intensive raying of the Freiburg clinic, minute description of the technique used in the Freiburg clinic is given. The apparatus consists of a 50 cm. induction coil and record interrupter with Rythmeur. Either Müller's water-cooled or Gundlach oil-cooled tubes are used. The degree of hardness (0.5 Wehnelt) of the tube should be determined every 4 to 6 weeks. The time in which the tube causes an erythema must be found, measuring by either Heimböck-Sabouraud-Nour's method. The tube employed has diameter of 1 cm. therefore the focal distance from the skin is 5 cm. The aluminum filter has thickness of 3 mm. Thus by compression desensibilization of the skin is caused. Five fields are regularly rayed: three on the anterior abdominal wall, middle, right and left, and two on the back, right and left. To each field one half of erythema dose is applied on five successive days.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Engelhorn. Biologic Diagnosis of Pregnancy
(Zur biologischen Diagnose der Schwangerschaft)
München und R. Kisch. 93, 12, 557
B. Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Engelhorn tested Abderhalden's pregnancy reaction with the dialysis method and the inulinhydrin reaction. Technically the serum must be free of hemolysis. Diffusio capillare No. 50 must be tested for albumin and pepsone. The placenta is extracted with ten times the amount of boiling water until the boiled water does not react with inulinhydrin. The blood was always taken 4 P.M. The following tests were made each time: (1) placenta alone; (2) pregnancy serum; (3) pregnancy serum plus placenta; (4) serum of nonpregnant; (5) thus serum plus placenta.

Results: forty pregnant women forty-nine gave positive and eleven negative results. Of forty-eight nonpregnant thirty-one were positive and seventeen negative. Besides placental tissue, amniotic ovarian and liver tissues were tested. Twelve pregnant women reacted to the cancer test ten times positively and two negatively. Eleven nonpregnant men reacted eight times positively and three times negatively among whom was one case of cancer. Three nonpregnant women reacted three times positively and three pregnant women once positively and two negatively with ovarian tissue. With foetal liver different results were obtained. The author concludes that Abderhalden's dialysis method is not a specific reaction, so that it is not justified basing diagnosis on it. SCHLIMMER

V. n. Tussenbroek. Influence of Pregnancy on the Death Rate of Tuberculosis in the Netherlands. (Influens van de Zwangerschap op de Tuberkulosesterfte in Nederland). Nederl. Geneesk. Ges. Scheveningen. 93, Feb.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Tussenbroek tabulates the Dutch material from 865,100 for four large and five smaller cities according to the method of Weinberg. In the four large cities 43 of 8,340 puerperae (or 3.4 in each ten thousand) died while in the sixteen towns the deaths numbered 678,867 (or 3.8 in each ten thousand). The general death rate of tuberculosis in the four large cities is 64 in 878.4 deaths or 26.40 per 1,000, while the monthly death rate is per 1,000. The monthly death rate in the puerperium was 3.4 per 1,000. It follows that of three women dying during the puerperium one must succumb to tuberculosis. The influence of pregnancy and the puerperium on tuberculosis may be active also after the first month. To prove

this the author collected 209 cases of women in Amsterdam who died from tuberculosis 7 of whom had children while 90 were married and childless and 49 were single. Of these 74 died within one year after the last labor. In other words 209 of 4213 women died from tuberculosis, or 28.6 per 1,000 and 74 of 64,37 recent mothers or 7.3 per 1,000. The tuberculosis mortality post-partum is practically somewhat smaller than the general tuberculosis mortality. This supports the contradiction to the fact that the tuberculosis mortality is increased the first month after labor is explained by a careful investigation from month to month from birth it follows that of the 74 deaths occurred during the first half year (in 64,37 or 7.34 per 1,000) and only 63 during the second half year (63 in 64,37 or 9.79 per 1,000). The general mortality 8.6 per 1,000 amounts to 4.3 per 1,000 for each half year. The tuberculous mortality post-partum therefore is much higher during the first and much lower during the second half year. The increased mortality during the first half year is evened up by the lowered mortality during the second half year. The same facts hold good for Amsterdam as Weinberg determined for Saxony and England. The first year post-partum does not increase the tuberculosis mortality. The mortality from tuberculosis in Amsterdam in the married (of 800 only 90 were childless) and the unmarried cases 0.000 living is as follows:

	865	875	885	895	900
Married	454	435	35	243	3
Unmarried	37	35	5	20	88

The decrease mortality greater among the unmarried, may be explained by social conditions, especially by the more favorable conditions for the married women come to live with tuberculous men. It also proves that the tuberculosis mortality of women does not become more favorable after the menopause. STRECHT

Sampson. The Influence of Ectopic Pregnancy on the Blood Supply of the Uterus, With Special Reference to Uterine Bleeding; Based on the Study of 28 Injected Uteri Associated With Ectopic Pregnancy. T. Am. Gynec. Ass. 93, May.
By Surg. Gynec. & Obst.

The author stated that as a result of ectopic pregnancy the uterus was enlarged, due mainly to hyperemia and thickening of the endometrium. The changes in the latter were similar to those found in the decidua vera of early uterine pregnancy and apparently due to arterial invasion from the terminal branches of the uterine artery. The

venous spaces of the endometrium were dilated and this dilatation was most marked in the superficial portion of the compact layer and at its junction with the spongy layer. The termination of the pregnancy as followed by involution of the uterus.

The first step in the involution of the endometrium as seen in the greater dilatation of the venous spaces, probably due to regressive changes in the stroma and apparently dependent upon diminished supply of arterial blood. The arteries were less evident during involution of the uterus. The dilatation of the venous spaces was followed by the escape of venous blood in the tissues of the endometrium. If the superficial venous spaces of the compact layer gave way the blood would escape into the uterine cavity without the formation of decidua cast. On the other hand, if the venous spaces at the junction of the compact and spongy layer gave way the extravasation of blood could occur mainly between these two layers, and the compact layer would be expelled as decidua cast. In time the excessive changes ceased and were followed by reparative process which as apparently dependent upon the respiration of the arterial supply of the endometrium. The involution following the termination of tubal pregnancy was very similar to that following uterine pregnancy differing only in degree.

In the vast majority of cases of ectopic pregnancy the complete termination of the pregnancy was gradual process (ten taking several days or weeks—four weeks or more in seventeen of the twenty-five cases at died). When operated upon the uterus had been and might still receive stimuli from two distinct antagonistic sources, namely pregnancy and involution. The condition present in any case depended upon which of these sources predominated and to what extent it had been and was influenced by the other.

The uterine bleeding as of venous origin from the venous plexus of the endometrium due to regressive changes in the latter apparently dependent upon diminished arterial supply. Muscular inactivity might also contribute to this. The bleeding continued as long as the pregnancy (products of conception) interfered with the process of involution. It was probably analogous to the bleeding subinvolution of the uterus due to incomplete abortion.

In discussion, HARRIS said that to one who had performed a good many operations for ectopic gestation, it is as interesting as it is interesting to have this unquestionable demonstration of the changes which occurred in the uterus. Of what practical use is the uterus after operating upon patient for an ectopic gestation. According to Smith and others the number is exceedingly small, not more than four or five men after being operated for ectopic gestation having given birth to children. Possibly there are four out of the 25 on whom he operated. In thirteen of these the ectopic gestation was recurrent. The only point which

came to his mind now as better in order to secure only four or five flappings in possibly 25 cases, we should save the uterus, not sacrifice menstruation, for the little interest in future offspring.

SAMPSON in closing the discussion, said in eleven cases of the series, the uterus as retained beneath the opposite tube was examined, because the women wished to have children. In every case he talked over the possibility of children before operating. He had followed the history of these eleven cases five of them had not become pregnant, although in two of them only a few months had elapsed since the operation. Two had borne children, one to and the other me, and the one who had conceived subsequently had tubal pregnancy in the opposite side. Three had had miscarriages, although they claimed they desired to have children. One had three miscarriages and the other two had one each. Another the sixth one, had tubal pregnancy in the opposite side making a total of repeated tubal pregnancy in the eleven cases. At the time of operation, the tube which was the seat of the second ectopic gestation was apparently normal, and which was retained with the hope that the woman would have child subsequently. He had encountered two other cases of repeated ectopic pregnancy in which the first operation as done by another operator so that he did not know the condition of the tube at that time. He was perfectly willing to preserve the tube and the possibility of future conception in every patient he desires to have children. On the other hand, if he found the opposite tube was diseased, and especially if a number of these women were fairly well advanced in years, that is 35 or 40 and had had their share of children, he thought we should every way make these patients just as well as we possibly could for the rest of their lives, and save them all future trouble. He could see very little use in leaving behind uterus which might have been the seat of inflammatory trouble or adhesions about it as the result of operation if it was only going to cause trouble.

In regard to bleeding without pain all but one of these patients gave history of tertile bleeding at some time during the illness. In one case the bleeding preceded the pain for three or four weeks and he could not account for it except probably there was the beginning of the termination of pregnancy in which the bleeding between the gestation sac and the wall of the tube was not sufficient to give rise to any serious symptoms.

In regard to preserving the ovaries, in nearly every instance no ovary was preserved.

Andrews Ectopic Pregnancy Occurring Twice
In the Same Patient. *Australas J Gyn.* 9, 3, 1914, 1.
By Surg. Grace & Obst.

The author reports a case which is of interest because of its rarity and the wholly different train of symptoms. On the first occasion pain was moderate, hemorrhage rather free and constant.

temperature elevated to 102.8° and distinct swelling in the position of the tube. Curettement relieved the symptoms, including the swelling. The scraping showed but appeared grossly as placental debris. Two weeks later a sudden increase of pain and illness took place and the author operated through the vagina. The mass was tubal mole in the left ad.

Ten years later he was called to see the patient again. Her pain was intense and vomiting referred to the appendiceal region, and toward the kidney; there was no hemorrhage, swelling, nor rise of temperature. Even then complete cast of the uterus discharged after an amenorrhea of about ten weeks, there was little bleeding. She had several attacks of pain and after nearly seven weeks consented to operation. A complete conception was found in the pouch of Douglas. The right tube was extended across the back of the uterus, and its amputated extremity held quantity of placental tissue. The patient made smooth recovery after removal of the tube and blood clot. She had no child nine years before the first ectopic.

C. H. D. vs.

Chenoweth. A Case of Ruptured Very Early Primary Ovarian Pregnancy. *Edinb Med J* 9: 2, 1916.
By Serg. Gynec. & Obst.

The case here reported complicates the conditions laid down by Spiegelberg and by Williams but only partially conforms to norms demand that the tube on the affected side shall not only be intact but shall be microscopically free from evidence of gestation. Chenoweth did not remove the tube in his case as the patient condition did not warrant unnecessary exploration. The tube of the affected part of the ovary are in no way connected.

The patient as 34 years old with entirely normal menstrual history. Three days before admission to the Edinburgh Royal Infirmary she had been suddenly seized with severe abdominal pain chiefly on the right side. Next day she took castor oil and felt better. On the fourth day the pain returned persisting after a enema, and diagnosis of appendicitis was made. There was no nausea or vomiting and no chills. Temperature $99-100$, pulse 120 small and feeble. The patient had had six children youngest two and one half years old, but no miscarriages or previous pelvic trouble. The abdomen was slightly disturbed tender all over especially the right iliac fossa, but no muscular rigidity. Vaginally the great tenderness made findings doubtful. Rectally tenderness as marked and distinct fullness as limited in the pouch of Douglas. Exploratory laparotomy as performed and the peritoneal cavity as found to be full of blood, partly clotted partly fluid. The right tube was normal but mass the size of cherry as found protruding from the uterine end of the right ovary on half inch away from the fimbriated end of the tube. This ovary as removed. The left appendage normal, as was the appendix. The uterus

was normal in size. Serial sections of the involved end of the ovary showed chorionic villi present in the blood clot. No embryo was discovered and in no section did the villi encroach on the ovarian stroma. No corpus luteum no luteal cells nor decidua were seen. In all probability the pregnancy was one of either ten or twenty days duration.

CARRY CULBERTSON

Speidel. Eclampsia; With Report of Three Very Unusual Cases. *K M J* 9: 3, 21, 39.
By Serg. Gynec. & Obst.

The author reviews the recent theories regarding the cause of eclampsia and discusses the various methods of treatment which are employed. He believes in evacuation but in the first case which he reports incision of the media basalis of both arms only resulted in the oozing out of 5 or 6 drops of arterial blood. The patient died one hour later. The blood pressure in this case as only 3 mm Hg. In the second case the blood pressure rose to 3 mm in October. The first week of December the blood pressure as 8 mm and induction of labor was advised. December 6 the patient could scarcely walk and the blood pressure was 3 mm. Labor as now induced by use of a large catheter. The child lived and the mother is improved. She had severe eclampsia in her first pregnancy and as blind for nearly three weeks thereafter. The third case hemorrhagic had a convulsion December 6. A threatened specimen of urine contained no albumen. Her blood pressure after convulsions was only 35 mm. The next day 7 mm and the third day 94 mm. She lost the use of the left arm and leg on the third day. The cervix as dilated with Voorbees bag and premature child delivered by cesarean. After 4 hours the man had blood pressure of 88 mm. His serum was given to avoid prevention of hemorrhage.

C. H. D. vs.

Nicola. Cases of Atypical Eclampsia (Cases de eclampsia atypica). *Rev d med* 17: 9: 3, 221, 15.

By Zecchini (1) and Gynak. Geburth. d. Grenzgeb.

Three interesting atypical cases of eclampsia follow. (1) Eclampsia 6 hours after labor the urine such as normal 6 hours previous, contained 33½ percent of albumin. There as slight edema of the ankles. Within 16 hours there are six convulsions and from then on only traces of eclampsia. The patient recovered.

(2) Combination of epilepsy (which dated from childhood) and was aggravated during pregnancy) and eclampsia during the second pregnancy. Forced delivery thus failed. The post-mortem examination showed localized focus in the brain, the result of former hemorrhage. Unfortunately the anatomical changes which might be referable to the eclampsia were not given.

(3) Eclampsia with unusually severe convulsions, resulting in death 8 hours after the first attack and

during forced extraction. There was positively no trace of albumin in the urine three or four days before the attack. SCHMIDT.

Bruce-Bays Pyelonephritis of Pregnancy. *Sa. African M J* 9 3, 21, 18.

By Surg. G. nec. & Obst.

Bruce Bays discusses the etiology, diagnosis, prognosis and treatment of pyelonephritis of pregnancy and illustrates the article with a case report. The diagnosis is based on the bacteriologic examination of the urine which usually shows the bacillus coli to be the exciting agent. The bacilluria has a tendency to persist. If ordinary means of treatment fail to give results an toxicuous vaccine prepared from the urinary bacteria should be used. Finally the author mentions the fact that puerperal infections from pyelonephritis are uncommon. If pyrexia occurs during pregnancy the former being associated with pains in the loins and back, one should think of the possibility of the presence of this disease. The induction of abortion or premature labor is never indicated, as correct treatment usually permits the pregnancy to be terminated in natural manner. HILSON SCHMIDT.

Jacobi Pulmonary Tuberculosis of the Pregnant Woman. *N Y St J M* 9 3, 211, 92.

By Surg., Gynec. & Obst.

The author outlines the prevention of conception and treatment of tuberculous women, and would prohibit marriage until the tuberculosis is cured. If married he could prevent conception by the use of the condom or of vaginal injections of slightly acid substances immediately after coitus. As pregnancy in a tuberculous woman is a very grave danger interruption has been recommended. The earlier this is done the lower the mortality. If does not divide the modern extensive operations, as for instance that recommended by Martin. The object of destroying the bacillus nest in the uterus could be accomplished by the use of intra-uterine irrigations of strong solution of carbolic acid or potassium permanganate. HILSON SCHMIDT.

Kohn The Influence of Pregnancy Labor and Puerperium on Tuberculosis (Ueber den Einfluss der Generationorgane auf die Lungentuberculose). *Beitr. Klin. u. Prakt. Gyn.* 9 3, 211, 7.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäc.

The author briefly reviews the literature of the subject for the last years and reports twenty-two cases in which the effect of pregnancy, labor and the puerperium on the course of tuberculosis was carefully watched. In sixteen cases no detrimental influence was demonstrated to some extent even an improvement was noticed. In seven cases a tendency towards wasting as observed during pregnancy but the more advanced processes were not always detrimentally affected. Among the cases in which an unfavorable effect was noticeable, there were two in which the progressive character of the

tuberculosis did not manifest itself until nine to twelve months after the last confinement, so that the change for the worse could not positively be attributed to the effect of the pregnancy.

These favorable results are of considerable importance considering the fact that the involvement of the lungs was no longer in its incipency. Although only a small number of cases is presented the author concludes that prevention of conception is hardly to be advocated in phthisical subjects, and the induction of abortion is not indicated. On the other hand nursing should be interdicted, and the acceptance of the tuberculous pregnant women in to sanatoriums is urgently requested. HILSON.

LABOR AND ITS COMPLICATIONS

Krug A New Manipulation During Labor (Ein neuer Handgriff bei Entbindungen). *Zentralbl. f. Gynäk.* 9 3, 211, 4 2.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäc.

The author reviews the manipulation he had previously proposed because of the favorable results he obtained by this method in cases of protracted labor. The patient is placed on a table (or transversely in bed) with the buttocks brought near the edge, the legs are spread and flexed, the obstetrician then places the three middle fingers of his right hand against the inner surface of the right tub. ischii and the three middle fingers of his left hand in the corresponding location of the left tub. ischii, thus the hands are crossed at the wrists. During labor pains the six fingers, by means of the leverage of the crossed hands, make a firm pressure in the direction of the transverse diameter of the pelvis, slightly lifting and widening the pelvis thus making the passing of the head easier. HILSON.

White The Contraction Ring as Cause of Dystocia with Description of Specimens Removed by Hysterectomy During Labor. *Lancet, Lond.* 19 3, 211, 604.

By Surg. Gynec. & Obst.

The author gives the following differential diagnosis

CONTRACTION RING

A localized thickening of the wall of the uterus due to the contraction of the circular fibres over point of slight resistance, most frequently over depression of the child's outline or below the present lag part.

1. The uterine wall at the site of the contraction ring will therefore be thicker than it is either above or below.

2. The all below is neither thinned nor distended.

3. The presenting part is not forcibly driven into the pelvis.

4. The child may be wholly or mainly above the contraction ring.

5. The body of the uterus above contraction ring is usually relaxed and not tender.

7. Round ligaments are not tense.
8. A contraction ring may occur in the first, second, or third stage of labor.
9. A contraction ring does not vary in position as labor goes on.
10. A contraction ring is rarely felt on abdominal examination.
11. The patient's general condition is good.
12. Causation: premature rupture of the membranes intra-uterine manipulations.

RETRACTION RING

1. The junction of the thinned lower uterine segment with the thick retracted upper uterine segment.

The uterine wall above the retraction ring is much thicker than it is below.

2. The wall below retraction ring is both thinned and over-distended.

3. The presenting part is or has been jammed into the pelvis.

4. Part of the child must be below the retraction ring.

5. The body above a retraction ring is tonically contracted and hard.

6. Round ligaments stand out.

7. A retraction ring practically always occurs late in the second stage of labor.

8. A retraction ring gradually rises as retraction of the upper uterine segment proceeds.

9. A retraction ring may frequently be felt per abdomen.

10. The patient's general condition is bad.

Causation: obstructed labor.

The author discusses the causes and differential diagnosis. In the series of cases which he has

at died excluding laparotomy cases, there is maternal mortality of 38% and a fetal of 63%.

In 19 cases, treated by laparotomy, excluding on death from eclampsia, the mortality is 31.5 and 48%.

H gives the history of three cases which came under his observation. H believes that expectant treatment is useless and drops of little value.

Cesarean section is indicated where the ring is wholly below a living child, and it is preferable to

embryotomy in the other cases if simple traction or manual dilatation fails and the child is alive. All

extra-peritoneal Cesarean sections are contra-indicated and in several cases the operations indicated are Cesarean section followed by hysterectomy if the child is alive or excision of the gravid

uterus unperformed if the child is dead. C. H. Davis.

Vogt: A Hematoma of the Abdominal Wall Developing During Labor (Über ein unter der Geburt entstandenes Bauchdeckenhematom). *Zentralbl. f. Gynäk.* 9. J. xxxvii, 493.

By Zentralbl. f. d. Gynäk. Geburtsh. u. d. Gynäk.

Stöckel: two cases are mentioned, these having developed through coughing spells during pregnancy and treated by incision and drainage. The author's

case developed spontaneously during labor. This

seems to be the only case known. Some hours post partum the patient complained of severe pain above the symphysis. Palpation revealed two symmetrical tumors at the insertion of the recti. The white line divided them and the tumors were probably in the rectus sheath. The size increased for three days, and then resolution began. The treatment instituted aided resorption. When the patient left the hospital on the twenty first day the tumor was still palpable. It disappeared four weeks later.

The etiology was obscure. There was no cough, fever or hemorrhagic diathesis. There had been no infection, intoxication or trauma. In the differential diagnosis, the only other condition to consider is double-sided paravascular hematoma. It is of value to medical jurisprudence to know that such tumor may have a spontaneous growth.

Potter.

PUERPERIUM AND ITS COMPLICATIONS

Gibbons: The Etiology and Treatment of Puerperal Eclampsia. *Brit. M. J.* 1913, i, 805.

By Surg. Gynec. & Obst.

The author gives a review of the types and possible causes of eclampsia. More than half of the paper is given to methods of treatment. His statistics are of considerable interest.

H draws the following conclusions:

First, that in spite of all the labor which has been spent upon investigations, nothing can be definitely stated about the cause of the disease, although everything seems to point to poison circulating in the blood. Second, without any doubt, recent

statistics show that the best treatment is that of rapidly emptying the uterus (by the safest means) after the first few convulsions. Third, the greater the delay in carrying out this treatment after the onset of the first convulsion, the greater will be the danger to the woman and child.

C. H. Davis.

McDonald: Puerperal Infection from the Gonococcus. *Am. Med.* 1913, x, 77.

By Surg. Gynec. & Obst.

McDonald reports a case of gonococcus infection after childbirth and he believes that this form of infection is much more common in maternity practice than is usually suspected. H found it present

in ten per cent of cases of puerperal infection studied bacteriologically and believes that the percentage would, if carefully studied, amount to one third of all cases. The great difficulty up to the present

time has been in obtaining free cultural growths of the organism.

In a series of seventeen cases reported the organism was seldom found before the fifth day. Of these eight had fever above 100° F. and twelve above

100° F. Both McDonald and Gurd have found that the association of gonococcus and streptococcus increases the virulence of both organisms.

However, gonococcus puerperal infection usually runs a mild course with a comparatively low grade

those where the vague pains over the kidney with pus in the urine and gradual loss of weight and strength are present—those with pyuria and marked rise in tempera- re—these are usually cases of mixed infection—those with sudden initial haematuria—next, those presenting as the chief symptom—renal t mor without any symptoms—the closed tuberculous hydro- or pyonephrosis cases and finally those cases in which perinephritic abscess of unknown origin occurs.

The question of diagnosis and examination including cystoscopy and ureteral catheterization is discussed.

The X-ray is of little val- nless the so-called putty kidney is present. The shadows thus obtained may sim late the presence of stone. Calcification of tuberculous area in any portion of the kidney may also simulate stone.

In regard t treatment, the autho believes that the non-operative method is applicable to but few cases. It quotes the statistics of Wildbolz, in which apparent cure only occurred in small proportion f 56 non-operated cases. The statistics f 1,03 nephrectomies collected by Israel show that 75 per cent were permanently cured. This emphasizes the importance of making a diagnosis before the ther kidney is involved and also shows the great value of the operative treatment.

Finally the method of operation procedure hich he uses is detailed.

Alger. Common Ocular Changes in Nephritis.

Post-Graduate 9 2, 2012, 33

By Surg., Gynec. & Obst.

The a thor states that characteristic ocular symptoms are not invariably present in nephritis. While Bright's disease is often first discovered by the oculist, larger mber of cases show no ocular signs hatever. Three classes of symptoms re recognized f nt those due t toxemia second, those due t vascular changes third, those result- g from general weakness.

The commonest and most characteristic ocular symptom of nephritis is the so-called albuminuric neuro stinitis which may occur in patients ith little or no albumi f nephritis of pregnancy partial trophy and permanent damage t the macular regio may result from comparatively slight involvement f kidneys, while total blindness re- sults in 5 per cent of the cases. Premat ro labo should be induced if retinitis develops before the seventh mo th f chronic interstitial nephritis the fundus picture is characterized by the vascular changes associated with the general arteriosclerosis.

Prognosis as to visio depends upon the location of the lesions, as well as upo character and extent. Those due t toxemia re most favorable. In other forms the appearance of retinitis is the most ominous both as regards vision and lif. From 60 t 80 per cent in long series of cases died within on year and the percentage of total blindness was very large.

Chronic nephritis, with resulting high blood pressure is probably predisposing cause of glaucoma. The errors of vision due to muscular weakness are often relieved by rest and proper glasses.

Thos. C. Hullow

Underhill. Intermittent Pyuria Due to Infection of the Prostatic Utricle. *J. Am. M. Ass.* 1912, ix, 974.

By Surg. Gynec. & Obst.

Underhill reports two cases of infection of the prostatic tricle with intermittent attacks of pyuria and calls attention t the importance of differentiating such cases from conditions higher p in the urinary tract which present the same phenomena. Both cases presented history of gonorrhea, one six and the other eight years previous, and at irregular intervals for several years also ed pus in the urine for several days. I one case these attacks were accompanied by frequency of micturition, and in th other by a sense of f lness in the perineum, and an aching in the testicles, but by no frequency of micturition. On examination both cases also ed normal conditions in the bladder, ureters, prostatic and vesicles. The urine drawn from th ureters and bladder was clear. The prostatic and seminal fluids were normal. The pus examined microscopically showed pus cells but no organisms. By the three glass test the urine as turbid, showing pus, in all three. Endoscopic examination of the posterior urethra showed the verumontanum t be swollen, edematous, congested, and easily bleeding. The lips of the stricture were glued together and ben forced part by probe allowed the escape of pus. The utricle was emptied of its pus and per cent f silver nitrat solution piped daily for few days, ith excellent results in one case and the formatio of adhesions of the utricular lips in the second. The application of 0.000 liq. formaldehyde completed the cure of the second case.

The a thor mentions Geraghty as having called attention t recurring attacks of posterior urethritis as o of the results of infection of the prostatic utricle. I the cases reported the interesting points are the intermittent attacks of pyuria, lasting few days, with symptomless intervals, and the similarity shown in these symptoms, t those occurring in tuberculous and other infections f the upper urinary tract.

H. J. Pomeroy.

Caule. Unilateral Renal Hematuria Cured by Pelvic Injections of Adrenalin. *J. Intern. M. J.* 19 3, 24, 244.

By Surg. Gynec. & Obst.

The a thor states that, in contradistinction to the prevailing idea that bleeding may originate from nephritis which also no clinical evidences of the disease, he has cured t cases of unilateral bleeding by pelvic injections of adrenalin to 2000. Both cases demonstrated clinical evidences of nephritis which evidently took no part in the production of the bleeding. Still in the two cases reported the catheterized specimens from the kidneys upon

analysis showed albumen and casts. By reason of the excellent results the author obtained in these two cases he makes a strong plea for conservatism in urging renal decapsulation as a method of relief and warning the profession against immediate radical measures in these cases until pelvic infections of adrenalin be tried first as a means of differentiation. In the two cases cited, he believes that the lesion responsible for the bleeding was undoubtedly in the renal pelvis, but whether it was a variety of an erosion or papillitis, he is not prepared to say.

He is thoroughly convinced that many of the cases are due to nephritis but also believes many of the cases are due to renal pelvic lesions, and these should first be proved or disproved by injection of adrenalin before any radical measures for the treatment of nephritis, such as decapsulation, are undertaken.

It would be of interest if the author would keep in close touch with these cases to find out if any subsequent bleeding takes place and possibly later on find out the lesion responsible for such a hæmaturia either by operative procedure or otherwise.

C. R. O'CONNOR

Pousson: The Future of the Nephrectomized
Am J Urol, 9, 3, 12.

By Surg. Gynec. & Obst.

The author raises the question:

If the single kidney of a nephrectomized person generally suffices to assure him of the urinary function during normal conditions of health, will it do the same in certain physiologic conditions as pregnancy or in pathologic states as in an infectious disease or even after a simple organic disturbance such as perine or accidental trauma.

These points are considered under the following heads:

I. MORAL AND FUNCTIONAL MODIFICATIONS SUPERVENING IN THE KIDNEY REMAINING AFTER NEPHRECTOMY

These modifications cannot be indifferent to the future pathology of the remaining kidney. First, the compensatory hypertrophy which is never wanting either in man or nephrectomized animals. In this compensatory hypertrophy there is no formation of new glomeruli and tubules but simply an increase in the size of those pre-existing. The process simulates the early stage of nephritis and consists of proliferation of the parenchymatous elements to a greater extent than the interstitial. The modifications in the secretions of urine consist first in a diminution of the quantity and amount of filtering from one half to one third for the first three or four days, then rapidly increasing and exceeding the normal. There is present small trace of albumen, and, the sediment leucocytes, casts and renal epithelium. These changes in the urine correspond to the anatomical lesions and show the presence of true parenchymatous and interstitial nephritis.

This nephritis is due to the action of toxic substances accumulating in the blood upon the suppression of one kidney before the other can get into condition where it can take them off. The limitations of the inflammatory process are doubtless due to the relatively feeble toxicity of the blood and the rapid restoration of the field of limitation of the incited kidney. The foregoing occur experimentally and are also true clinically when nephrectomy is practiced for renal trauma.

Are they equally applicable when this operation is undertaken for affection, acute or chronic, suppurative or non-suppurative diathetic or non-diathetic recurring later in the congenital or else attacking it at the same time as the first?

Observations prove that this is so. A toxic nephritis follows different diseases of the kidneys but it is no contraindication to operation on the contrary the nephritis clears up after the removal of the diseased kidney provided the process has not advanced too far and the organism is not itself too much intoxicated. Just as in the well kidney the diseased kidney becomes the seat of compensatory hypertrophy. In many subjects, hypertrophy of the remaining kidney has already developed before the removal of the diseased organ, thus offering the urinary secretion a substitute field already prepared for work. This hypertrophy varies in different conditions in nephrosis where there is gradual and aseptic hypertrophy of the kidney hypertrophy is complete and is comparable to that which follows experimental nephrectomy. Aseptic lithiasis is accompanied by real, although slight hypertrophy. In pyonephrosis, tuberculosis and cancer it is slight.

Are the modifications observed in the remaining kidney during the interval following nephrectomy permanent and does the kidney definitely retain this advantage so that it may assure the process of urinary secretion in all its integrity?

There are but few histological studies of the remaining kidney recorded but these all show the increase in volume relates to the glandular rather than the interstitial tissue showing permanent and true hypertrophy.

Chemical and histological examination of the urine as well as the various functional tests with methylene blue and other substances show in majority of cases complete retention of renal function. This is equally true when the nephrectomy has been performed for disease such as pyonephrosis, tuberculosis or lithiasis, as for conditions which do not affect the anatomical elements, as traumatism.

But this is not always the result and in a fairly large number of subjects one can find for many years persistent urinary troubles both quantitatively and qualitatively, these lesions being less the result of the toxic nephritis than of the lesions with which the kidney was itself affected at the time of intervention. The acute and interstitial changes explain their persistence but except in those cases where the original disease attacks in turn the remaining kidney they tend to remain unchanged.

Clinical observation also shows, despite these alterations in the urine indicating a kidney lesion that nephrectomized persons can live for years without any aggravation of these conditions and may even overcome various diseases—still his resistance is undoubtedly diminished.

Thus from the study of the kidney function nephrectomized patients are divided into two groups: (1) Those who entirely recover their physiologic function and (2) those who retain more or less definite disturbances of these functions. The latter are in the minority.

II. A STUDY OF THE SINGLE KIDNEY FROM THE POINT OF VIEW OF PURIFICATION OF THE BLOOD IN THE VARIOUS PHYSIOLOGIC AND PATHOLOGIC CONDITIONS.

Resistance of the single kidney to intoxication and infections. There are many clinical cases which show that it makes the remaining kidney badly diseased nephrectomized persons resist infections on the whole very well.

Effects of nephrectomy on the general health and on the development of the individual. I suppose various lesions acute and chronic nephrectomy by removing the source of sepsis and permitting the remaining kidney to recuperate its functions restores general nutrition and causes actual resurrection in a few weeks. The influence of nephrectomy on the development of the individual when performed in adolescence or infancy seems to be as usual as is attested by various reported cases.

Pregnancy complicated following enlargement of the kidney. Nephrectomy seems to have no effect on the development of pregnancy and many normal cases are reported, not only single but successive. The published case, however, gives no information as to the nutritional and functional state of the kidney but it is probable that its condition was normal. When there is present the slight nephritic lesions already referred to there is undoubtedly more danger, particularly if some intercurrent infection add its toxin to those of pregnancy.

Abnormal and septic labors would undoubtedly offer considerable danger in women with one kidney, but this is theoretical as none such are recorded. Nursing is no more interfered with by nephrectomy than in pregnancy.

The anaesthetic. In anesthesia Trauma and the exception of the sudden death of a nephrectomized patient due to accident there are no instances to determine the resistance of such an individual to accident. It is arguable that in cases of severe shock due to lacerated wounds or burns, the already grave prognosis could be aggravated.

There are a large number of observations which prove that even the most serious surgical operations can be successfully performed on patients possessing but one kidney. Such operations should only be undertaken after one is assured of the proper functioning of the kidney and due care is to be observed during the operation and the subsequent drainage

as regards the employment of any antiseptic whose absorption might cause renal irritation.

Anesthesia. Individuals possessing but one kidney can be submitted to an anesthetic inhalation without danger, due regard being had for the fractional ability of the kidney.

Method, The Technique and Results of Lateral (Paraperitoneal) Nephrectomy. *Am. J. Urol.* 9, 3, 15, 77. By Surg. Gynec. & Obst.

Lateral nephrectomy is considered to be better than the inferior transperitoneal operation because the peritoneal cavity is not opened because it is easier to push the entire peritoneal sac toward the median line than to keep a mass of intestines out of the operative field and because by the lateral route the operative field is closer to the surface of the body. Over the commonly employed lumbar route it has the advantage of better exposure of the kidney pedicle, so that the necessary manipulations can be carried out under the guidance of the eye. Its chief disadvantages lie in the danger of post-operative hernia on account of division of the eleventh intercostal nerve yet 18 efficient cases operated upon by this method eight re-found it have perfect control while the remaining ten presented slight impulse on coughing.

Operative technique. The patient lies on his back, lightly turned toward the healthy side, a sand bag being placed beneath the affected side so as to throw the lower portion of the thorax forward. The incision starts at the point where the anterior axillary line crosses the costal margin and is carried down and forward to a point about one inch in front of the anterior superior spine of the ilium. The external oblique is split in the direction of its fibres, the internal muscles are cut across. If more room be required the medial portion of the external oblique may be cut transversely. The peritoneum is then stripped forward and a long retractor is inserted to expose the renal region. The fatty capsule of the kidney is then opened and the organ freed under guidance of the eye, additional retractors being inserted to elevate the costal arch and lift up the peritoneum as far as the median line of the body. The method is particularly applicable to cases complicated by dense adhesions. Drainage is established through a secondary wound in the loin. The muscles are sutured in two layers with interrupted sutures of heavy catgut.

Healing is usually rapid, even in infected cases.
S. W. MOONSHAN.

Kellogg. Ligation of the Renal Artery and Vein in a Patient for Nephrectomy. *Proc. Roy. Soc. Med.* 19, 3, vi, 79. By Surg. Gynec. & Obst.

The thoracic attention was called to ligation of the renal vessels as a substitute for nephrectomy by the report of a case of tuberculosis of the kidney operated upon by this method by an Indian surgeon. The method appealed to him as a useful one and he accordingly adopted it in a case of pyonephrosis due

renal calculus with a renal sinus in the loin. The kidney had previously been incised, an abscess opened which continued to discharge through the persistent lumbar fistula. As the patient was in poor condition, Kellock explored the wound, found the calculus the size of hen egg which he removed, and ten weeks later ligatured the renal vessels through abdominal route.

In ten days the urine had become much clearer, the patient had improved, and there was very little discharge from the sinus. After nine weeks this sinus was again explored and several friable masses of kidney tissue came away. The wound then healed, and the patient recovered his health. The author discusses the technique of ligature by the abdominal route, and points out that on the right side the vessels are more difficult to reach since the head of the pancreas and the duodenum overlie them.

In the discussion of the paper Swan said that he felt it would be a useful method in cases of renal sinus in the loin, but he did not believe it would check suppuration of tuberculous kidney. Makins reported a case in which ligature was performed, and the effect was only temporary possibly due to the presence of a supplemental renal artery which preserved the circulation of the kidney.

Guitierrez: Some Aspects of Renal Surgery. *Canad. Pract. & Rev.* 9 3, xxviii, 9.

By Surg., Gynec. & Obst.

This article is the report of an illustrated lecture given by Guitierrez. It consists chiefly of references to cases in his own experience, with a few general observations on the conditions thus illustrated.

The lecturer considers first developmental anomalies of the kidneys, such as unilateral asymmetrical and horseshoe kidney and variations in the position of the organ. He speaks also of cases of hydronephrosis, rupture of the kidney, nephrolithiasis, cystic and polycystic kidney and renal tumor.

Two cases of unusual interest which he mentions concern the rupture of pyonephrotic kidney containing calculi, and hydatid cysts of the kidney.

GROVER G. SWAN.

Lloyd: Is Decapsulation of the Kidneys for Chronic Bright's Disease Justifiable? *Post-Graduate*, 9 2, xxviii, 132. By Surg. Gynec. & Obst.

Based on his observation upon the record of 2 cases previously reported by Edebohle, and 9 cases reported by himself, total of 11, of which 4 cases were cured and have remained well, the author concludes that the operation is justifiable. In addition to the 4 cases cured, 33 others were improved. All of the cases referred to had resisted careful and scientific medical treatment. Few of them had received post-operative treatment of any kind, improvement being due solely to effects of renal decapsulation. The mortality of the operation was slightly above 1 per cent.

The author believes that the immediate good effects are due to the massage of the kidneys and the relief to congestion afforded by the direct abstraction of more or less blood from the organ during operation. In all cases that are steadily progressing in spite of rational medical treatment, operation is advised.

THOS. C. HALLOWAY.

Baright: Method of Classification, Diagnosis and Therapy of Kidney Disorders, Based on Functional Testing. *Med. Rev.*, 9 3, xxxiii, 699. By Surg., Gynec. & Obst.

The author gives history of kidney disorders from the time of Bright (1836) up to the present. He cites the different theories including the modern view. This is as follows: The urinary water and crystalloids are separated from the blood serum in the glomerulus by simple process of infiltration which is dependent upon the blood pressure and chemical composition of the serum, in the tubule the primary urine is concentrated by water reabsorption and at that time is enriched by the addition of certain organic and inorganic constituents. He discusses the normal function of the kidney and divides it into three processes: simple filtration, osmosis and synthesis. He discusses the diagnosis of dropical and non-dropical uræmic nephritis as well as the method of producing experimental nephritis by the administration such as cantharides, corrosive sublimate etc. He prepared schematic outline for the classification, diagnosis and therapy of kidney disorders from his experience and knowledge of the kidney. The article is very exhaustive.

J. RADON.

Brasch: Recent Progress in Uretroscopy. *J. Mich. St. M. Soc.*, 9 3, xli, 189.

By Surg. Gynec. & Obst.

Uretroscopy has been employed in the Mayo Clinic in the treatment of more than 1,000 patients without fatality or permanent injury. The following technical precautions are to be employed:

- (1) Colloidal silver crystals are to be carefully ground in mortar and then filtered.
 - (2) Solution to be warmed and not boiled.
 - (3) Solution to be injected by gravity method.
 - (4) Large ureteral catheter should be used.
- Contra-indications for its use are:
- (a) In markedly hypersensitive individuals.
 - (b) With ureteral obstruction which will not permit the pelvis of the kidney to drain after the colloidal injection, as with large hydronephrosis.
 - (c) In any condition which can be definitely diagnosed without uretroscopy.
- When the ureter appears kinked in the erect pyelogram or when the ureter assumes an anomalous course after leaving the pelvis there is no objective indication for operation unless a dilatation of the pelvis or ureter can be demonstrated above it. It is often difficult and occasionally impossible to distinguish between the outline of small hydronephrosis (20 to 30 cc.) and that of large normal pelvis. Small hydronephroses must be completely distended in order to be recog-



Fig. (Proust and Boquet) Preparation of the superior end. The needle, having traversed the wall of the ureter from within out at a distance from the cut edge, is returned from without, i.e., close to the cut edge.



Fig. (Proust and Boquet) Preparation of superior end. Traction upon the opposite end of the suture causes eversion of the mucous membrane.

nused. Care is required to fully distend the ureter in order to demonstrate dilatation. Gas and oxygen as injecting mediums instead of colloidal silver have not proved practical in the author's experience. Confusion of the shadow of the pelvis (injected with air) with that caused by gas in the adjoining bowel renders interpretation uncertain. Lack of detail in a distended pelvic outline is disadvantage. Distention of ureter is frequently difficult to show unless fully distended. Colloidal silver will not outline ureter if allowed to run in from the bladder when the patient is in the Trendelenburg position unless the meatus be dilated.

Proust and Boquet Technique of Circular Ureterorrhaphy (Technique de l'ureterorrhaphie circulaire) *J. de chir.* 9, 3, 4, 7

By Surg., Gynec. & Obst.

The indications for circular ureterorrhaphy are: Proust and Boquet are almost exclusively frustrated by cases of voluntary or involuntary section of the ureter in the course of operative procedures. In general, the end to end suture of the urethra is accomplished by one of the following methods. Direct suture, suture upon a conductor and suture by

invagination. After comprehensive review of the literature, with comments upon the technique of the proponents of these three methods, the authors, describing originality for their ideas, have been operation on these fundamental points: invagination (after Poggi), eversion of the mucosa of the superior end (after Ricard) and the folding of the inferior end (after Proust).

First step. Preparation of the superior end of the ureter, eversion of the mucosa. After ensuring the cut edge smooth with the acissor, the mucosa is grasped at four equidistant points by fine toothed artery forceps (Hocher-Tierrier) and ureter is separated from the overlying tissues with the non-toothed dissecting forceps. When the eversion of the mucosa can be easily accomplished, one suture is passed in each space between the forceps, including the wall and all. When the eversion presents some difficulty, its fixation is accomplished by special manœuvre. A canalic needle threaded with cotton is passed through all coats of the ureter from about one centimeter from the cut edge. This same needle is returned through the wall from about in, very near the free edge (Fig. 1). The procedure is repeated in the remaining three



Fig. 3. (Prosser and Boquet.) Preparation of the inferior end. Longitudinal incision.



Fig. 4. (Prosser and Boquet.) Read for invagination. Introduction and fixation of the posterior and internal guide sutures.

spaces between the guide forceps. To evert the mucosa equal traction is made. All threads the four which emerge nearer the cut edge are pulled up toward the kidney the others down (Fig. 5).

Second step. Preparation of the inferior end. In order to prevent compression of the invaginating superior extremity the upper end of the inferior extremity is dilated by gently separating the blades of a fine artery forceps introduced into the lumen. Next the artery forceps as guides are placed close together on the cut edge and the ureter divided longitudinally between them for a distance of one centimeter (Fig. 3).

Third step. Invagination. This is accomplished by means of the four sutures in the superior end. Each end of each suture is threaded on a cambric needle. That emerging externally (the one which engages the everted mucosa) is introduced into the lumen of the inferior end and pierces the wall from within out about two centimeters from the margin that emerges externally (the one which emerges from the lumen of the ureter) is introduced similarly the first parallel to it, and emerges from the wall from within out two millimeters lower (Fig. 4). The order of introduction followed by the authors is to commence with the posterior pair then the internal,

external and finally the anterior. To complete the invagination, the eight ends are carefully paired gently drawn until slight resistance is met each paired and the loose ends cut (Fig. 5).

Fourth step. The inversion of the inferior end. Near each border of the longitudinal cut at equal distance from its extremities, single short stitch is taken with fine catgut. Drawing upon the loose ends of these stitches causes the center of the flap ends to bulge and the ends are easily turned in by means of the grooved director (Fig. 6). The inversion is completed for the entire circumference and is held in place in the following manner. The inner end of each guide suture is threaded on a fine curved needle with which single stitch is taken in the wall of the superior end of the ureter care being taken not to enter its lumen. Two similar ureters are taken posteriorly and tied. Before tying the inferior sutures, stitch is taken in the free borders of the longitudinal incision in order to close this cut and at the same time to assure the position of the inverted wall (Fig. 7). It is equally important to note that the approximating sutures should not be of the same longitudinal axis as the sutures of invagination but should alternate regularly with them (Fig. 8).



Fig. 5 (Proust and Burquet). The invagination completed. The ends of the guide wires are joined in pairs.

The great difficulty of this technique is the claim that the eversion of the mucosa is obtained more by the disposition of the surfaces than by the effect of the sutures, and no matter how quickly the ureter is absorbed there still follows no separation of the two ends. Also from the viewpoint of ulterior functional result the eversion of the mucosa is of enormous advantage for it produces an outer lined tubular membrane and protection against retroaction.

The functional results of experimental ureterorraphy as studied by Alkane show that the rhythmic peristalsis of the sutured ureter is much slowed but as the peristalsis is more abundant Alkane explained this phenomenon by a slight stenosis which makes it necessary for the superior end to become distended and form a pouch before it could empty itself into the lower end. A case quoted by the author seven months after operation, the sutured ureter gave four peristalses per minute each of eight to ten drops of clear urine similar in many respects to that of the opposite side.

The conclusion drawn by the author is that from the point of view of physiologic result the eversion of the mucosa added to the classical procedure of invagination sutures much better outflow of urine and more surely prevents stenosis. Collected



Fig. 6 (Proust and Burquet). Showing the method of using in the inferior end the grooved director while traction on the loops of catgut closes the edges of the longitudinal cut to facilitate invagination.

tactules also that suture by invagination gives one half as many urinary fistulae as the suture direct. Also invagination permits the use of catgut as suture material whereas silk necessary in the direct method, may be the starting point of urinary calculus. In practicing the direct invagination, especially

the eversion of the mucosa it is essential that the ureter be long enough to allow good overlapping of the two ends. The ureter can only have been cut not resected. If the loss of substance is such that it causes noticeable stretching, it is better to resort to the suture direct and if this threatens to be followed by marked tension, due to retraction of the two ends it could then be more prudent to resort to the suture upon a conductor. *ELIAS FINEMAN*

Bonn. Ureteral Catheter Diagnosis and Therapy

Indications M. J. 9 3, xvi, 37.

By *Sarg. Gynec. & Obst.*

The author discusses the technique of ureteral catheterization in detail with especial emphasis upon the X-ray procedure. He discusses determination of the capacity of the renal pelvis, vesical lesions, stricture and obstruction of the ureter, dilatation and fistula of the ureter, hydronephrosis, acute pye-

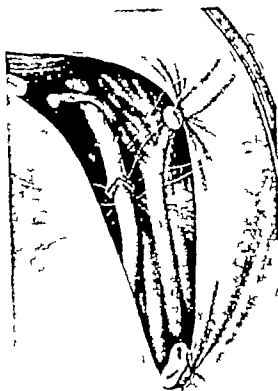


Fig. 7 (Prosser and Baggett.) Approximating sutures showing the position of the sutures.



Fig. 8 (Prosser and Baggett.) The completed operation. Note the alternating position of the knots in the rows of sutures.

blitis cystitis hematogenosa anal infection pyonephrosis and renal tuberculosis.

In conclusion Bonn calls attention to the frequency of errors in the diagnosis of renal tuberculosis. There are many cases of renal tuberculosis, he says, that are now being treated for retroversion of the uterus because the tipped-up portio vaginalis produces certain amount of vesical irritability. The author assumes that the diagnosis is usually in error and uses three cases as proof. In these cases the final diagnosis of assumed delusion had made possible the development of bilateral renal tuberculosis.

The author recommends better diagnosis and an early nephrectomy. He also suggests dissection of the ureter and ligation close to the vesical meatus. When such procedure is contra-indicated the writer recommends total rectom by the injection of pure phenol.

HARVEY A. MOORE

BLADDER, URETHRA, AND PENIS

Buerger. The Pathology and Treatment of Callosous Ulcer of the Bladder. *Med. Rec.* 3, June 1910. By Surg., Gynec. & Obst. The author in his very interesting article makes point out that the so-called cases of simple

ulcers of the bladder are not of the type that he terms callosous variety. He states among other things that a superficial stud and cursory perusal of the reported cases of the literature may give the impression that topical applications of silver nitrate can cure simple ulcers of the bladder.

A critical review of the history of such cases and the cystoscopic findings could lead to the conclusion that such cases belong to the superficial variety of ulceration and that no case of deep-seated callosous ulceration has been cured by topical application of medicament alone. He further states that the cases which he diagnosed under this heading did not yield in any way to repeated fulguration.

After detailing two of his cases, he draws the following conclusions:

Clinical cystoscopic and pathological studies in the cases of vesical ulceration have conclusively shown that simple callosous ulcer of the bladder can and does exist.

The clinical symptoms of this condition are intense dysuria, urgency, frequency of micturition, the sanguinous and purulent discharge. The micturitions become progressively more marked and take a chronic course.

3. The prognosis of this disease and the pro-

gressive impairment of vesical capacity speak strongly for the view that chronic cystitis and contracted bladder are often the sequelae and outcome of solitary ulceration.

4. The region of the trigone seems to be the favorable site for the chronic indurated type of ulceration.

5. Although designated as simple, and often as solitary ulcer of the bladder this condition may be accompanied by superficial erosions of the mucous membrane elsewhere in the bladder which are undoubtedly secondary to the intense cystitis accompanying the ulcer.

6. The most effective and rapid method of curing the disease as well as the simplest procedure is the excision of the ulcerated area by means of the author's operating cystoscope and punch forceps.

7. Less radical measures of treatment such as cauterization with the actual cautery or fulguration and silver nitrate irrigation are of no avail in this type of ulcer.

8. Histological examination in two cases has shown that the pathology of this condition is rather characteristic there being a superficial deposit of urinary salts, a layer of necrosis and ulceration and stratum of newly formed connective tissue with active evidences of inflammation. The margin of the ulcer shows intensely vascular inflamed mucous membrane and submucosa.

9. In every case of chronic cystitis, particularly in women, where dysuria, urgency and frequency of micturition are marked, careful search should be made for this form of ulcer for if it be present it is more than likely that chronic cystitis and an irritable and contracted bladder are secondary and may be cured by the method advocated.

ISA. S. KOLL.

Newman. Chronic Cystitis and Retention of Urine, Treatment by Drainage and Its Beneficial Effect Upon Damaged Kidneys. *Practitioner* Lond. 9 3, 21, 67.

By Surg. Gynec. & Obst.

In this article the author presents the result of his personal experience in drainage of the bladder in cases where back pressure from obstruction has damaged the kidneys. He reaches the following conclusions:

Obstruction to the free escape of urine involving increased tension in the kidneys, may lead to the development of symptoms—polyuria, albuminuria and toxæmia—resembling those of interstitial nephritis, which form serious complications of the bladder trouble and, if not relieved ultimately lead to toxæmia.

Drainage may be carried out in three ways: (1) By urethra, (2) intermittent catheterization and irrigation, (3) continuous drainage by indwelling catheter. (b) By perineal urethrotomy (c) By suprapubic cystostomy.

Of these methods the author prefers suprapubic cystostomy.

3. By free continuous drainage of the bladder these symptoms diminish and ultimately disappear and the patient is placed in more favorable condition so operative should further treatment be required.

4. Free continuous drainage is also followed by diminution in the size of the kidneys and contraction of the ureters, so that the orifices regain their normal valvular action.

5. In chronic cystitis, free drainage by suprapubic cystostomy is the surest method of giving relief to the symptoms or of curing the disease.

Gossett. Suprapubic Cystostomy. *N. Y. J.* 9 3, xvii, 640. By Surg. Gynec. & Obst.

The indication for cystostomy in cancer of the prostate and in all other malignant neoplasms of the bladder and urethra arise under very different circumstances—when the growth is still operable it is temporary palliative operation, and it is permanently palliative when the growth has become inoperable. The symptoms of malignant affections of the prostate are quite the same as for simple prostatic hypertrophy. In either case, the indications for suprapubic cystostomy are the serious complications, as acute retention, severe infection, intolerable pain or free hematuria and bad general condition. Suprapubic drainage will relieve the urgent symptoms and allow later date the removal of the diseased gland. The three present cases of suprapubic cystostomy in the inoperable stage have been made comfortable from 2 months to 1 year. In operable cases, total prostatectomy should follow as soon as the conditions admit. Frequently the progress of the malignant disease is lessened by the favorable general effect of the operation and in some cases the life of the patient is thereby considerably prolonged. Desnos reports a case that survived the operation for over four years. The author includes in his indications malignant disease of the rectum and other intra-pelvic carcinomas which may be involved either the prostate or bladder to the extent of giving rise to severe urinary disturbances, and especially recommends permanent suprapubic cystostomy in all cases of inoperable prostatic malignant disease since temporary cystostomy will rarely suffice.

HARRY D. ORR.

Gossett. A Case of Ectrophy of the Bladder Treated by the Operation of Hetta Boyer Hovelacque (Urethra ectrophiée guérie traitée par l'opération de Hetta-Boyer-Hovelacque). *Bull. et mémoires Soc. de chir. de Paris*, 9 3, xxxix, 70. By Journal de Chirurgie.

Gossett presents a boy, 9 years old, whom he had operated for ectrophy of the bladder by the method of Hetta Boyer Hovelacque. Three operations had previously been done, eight, fifteen and sixteen years by the plastic methods then in use and each time it failed. Gossett followed the technique of Hetta-Boyer Hovelacque exactly and considers it

perfect. He began the operation with the intention of using the method of Cusco which had attracted him and seemed the simplest. At the last step of the operation it is necessary to use a loop of the Deum, the long mesentery one that can be pulled down easily. In the case at hand he found that he could not lower the terminal loop of the Deum. If therefore turned to the method of Heitz Boyer Hovelacq.

This method the most delicate point is the anastomosis of the left ureter to the branch of the mesocolon inferior but nevertheless they must be preserved.

Wasson carried out the entire operation at one time. His patient was cured. It must be noted that the upper urinary passages are not infected. The patient can hold his urine during the day. During the night he had involuntary passage only twice during the months. J. DEXTER

Cumston. Excision and Suture of the Treatment of Dense Close Urethral Strictures. *Ann Surg Phila* 9:111, 1900.

J. Surg. Gyner & Obst.

Cumston describes what he considers the operation of election in cases of dense close urethral strictures. Such strictures he says occur most commonly from traumatic rupture of the bulbous urethra. Excision of the scar without doubt gives the best results there are however several methods of treating the severed urethral ends.

Any method requiring permanent catheter in the urethra is bad urine cannot be kept out of the urethra it stagnates about the line of suture causing suppuration and swelling scar orchitis is caused by the catheter. Urethrostomy the other hand requires no operations and perineal irrigation for months.

In the operation which Cumston advocates, the urethra is opened on the point of sound just in front of the stricture. The cicatrix is removed as completely as possible as much 6 cm. of urethra may be resected. The posterior segment is freed for 1 cm. the anterior for 3/4 cm. Sutures are then placed in the perineal tissues so as to bring the ends together without tension the ends themselves are united by fine catgut sutures while a large sound is in the urethra. The urethra is opened upon the sound at least 1/4 cm. behind the suture line and catheter fastened in the bladder through this incision. The perineal wound is closed for two thirds of its extent.

In case retrograde catheterization has been necessary or the stricture is so deep that the button-hole could come in the membranous urethra supra pubic drainage is advised.

The catheter is removed on the tenth day and sounds passed on the 11th. The bladder should be washed daily but the anterior urethra should be left alone. In the presence of severe cystitis the catheter may be left in much longer than ten days. GEORGE G. SWIFT

Pedersen. Urethral and Periurethral Lithiasis. *N Y M J* 9:320, 1898.

By Surg., Gynec. & Obst.

The author carefully discusses the three bases of lithiasis in all urogenital organs as disturbances of urinary metabolism causing precipitation of normally dissolved salts and as disturbances in the hydrodynamics and physics of urination favoring retention and decomposition, usually lith (rarely without) infection—both these constituting the primary pathogenesis of lithiasis. Foreign bodies the result of disease surgery and perversion to the third basis. These stones are migratory or formative—strictly native urethral stones. Calculi may be loose encysted in pocket and diverticula. According to English impaction occurs in the membranous urethra 4 per cent in the penile urethra 58 per cent (narrower fossa 10 per cent pendulous portion 4.5 per cent scrotal portion 13.7 per cent bulbous portion 8.6 per cent). From their origin stones may be endo urethral and periurethral. Lithiasis affects children and adult giving in the former objective symptoms only and the latter usually previous history followed by a crisis of shock anuria retention of urine distended and tender bladder rupture of the urethra and extravasation especially in children.

On physical examination stones may frequently be located with the urethroscope and sounds within the urethra with the finger externally or through the rectum. Numerous case reports of lithiasis in children with and without fatal issue of operation are cited. Numerous case reports of urethral calculi are cited having native migratory and foreign body origin. A preference is shown for the classification of these stones into those of the anterior and posterior urethra from the standpoint of treatment rather than from the standpoint assumed by the German authorities, namely of the division of the stones into the strictly endourethral and exourethral sources. The author case of prostatic calculi is described under the heading of periurethral lithiasis.

The relation of radiography to urethral and periurethral lithiasis is briefly discussed. Treatment is concerned with preventive and curative measures. The former embraces the management of metabolic errors both systemic and urinary. Curative treatment includes emergency and election cases. Emergency work in this field is usually met with in childhood and old age, while the mildest condition is mostly of the election type. The presence or absence of complications makes up the chief point of the lecture cases. Uncomplicated simple urethral lithiasis has its own and obvious indications. On the other hand the complicated which usually means infected, cases add the element of free drainage as well as the removal of the stone or stones. This is a valuable review of the whole subject through the history of the past up to the present in the light of modern urological knowledge and diagnostic current.

GENITAL ORGANS

Culler Epididymotomy A Plan for a Rational Treatment of Epididymitis. *Am J Urol* 19 3, 4: 93 By Surg. Gynec. & Obst.

I this short article the author makes a plan for the operative treatment of epididymitis, claiming that it is the only rational treatment. II states that gonorrheal infection of the epididymis results in abscess or cyst formation and therefore drainage is necessary.

Early experience with Wagner's operation convinced him of the value of epididymotomy but he considers this operation too formidable. II describes his simple technique which he has used in sixteen cases. The steps in his operation are as follows:

An incision three-fourths of an inch in length is made over the most prominent part of the infiltrated mass down to the dense fibrous covering of the epididymis. Puncture of the tunica vaginalis is made from the nearest round nodule with needle or tenotomy. A solution in the dense fibrous covering of the major or minor is made in the long axis of the tumor. The point of a hemostat is the thrust into the mass with the idea of entering the pus pocket. The instrument is opened and then withdrawn. A piece of No. 3 tubing one inch in length is inserted to the bottom of the wound and fixed with a suture. Copious drainage and Jumbo compresses complete the procedure. Pus will be found in all advanced cases and the fluid escaping in scanty cases. III be found to contain gonococci.

In this series of sixteen cases he noted the following results: I. Sudden and permanent relief of the pain. II. Disappearance of the inflammatory mass. III. Rapid reduction of the inflammatory mass. IV. Early healing of operation wound without suppuration. V. Early convalescence without relapse. II A. Foster.

Armstrong Prostatectomy—Suspension of the Bladder. *Canad J Urol* 9 3, 4: 6 By Surg. Gynec. & Obst.

The author divides the suprapubic operation for the removal of the prostate. II also advises the nature of the bladder to the interior wall and the obliteration of the prevesical space at the time of the operation. These two results are obtained in the following manner: A catgut suture is passed through the anterior sheath of the rectum and through the edge of the opening into the bladder from the outside, in and then out again through the bladder wall and the interior rectum sheath, the point of exit from the bladder being either one inch above or below the point of entrance. This is repeated on the other side. When these two sutures are tied the bladder is firmly anchored to the buccal wall and the prevesical space is practically closed.

The author maintains that this operative technique tends to obliterate the post-prostatic pouch, and pain is relieved of their residual urine at once. V. D. Lester, M.D.

Rockey Prostatectomy by Compound Method. *Surg. Gynec. & Obst.* 9 3, 4: 434

By Surg. Gynec. & Obst.

The method is termed compound because it utilizes features of technique derived by various operators. These have been blended to form just the author at this time considers the best procedure in the facility of operation with minimum danger, speedy recovery and excellence of final results.

The operation is suprapubic enucleation, utilizing the technique developed by Belfield, McGill, Fuller, Guitierrez, Prever, and others. His additions are short incision, stricture was present of the bladder by two sutures, and the total abandonment of irrigation, either at the time of operation or as routine during the after-treatment. Intra-vascular retractors, sponging, and packing are not used.

The details of the operation are as follows: Spinal anesthesia is produced by storvaline or general anesthesia by ether. The bladder is filled with warm water. When catheterization is difficult and the bladder is already distended with urine the operation may proceed without or bladder irrigation.

Whitard Pre- and Post-Operative Treatment of Prostatectomy. *Lancet Clin* 9 3, 4: 33

By Surg. Gynec. & Obst.

The author of this paper in particular stresses upon the preparatory treatment as well as the post-operative care of the men subjected to prostatectomy. Not only does he consider better results obtainable by way of care but better opportunity for the study of cases where the patients are subjected to preparatory treatment. It has been the author's custom for many years to secure drainage by catheter anchorage during greater or less length of time before operation, and that the anchorage of the catheter could not be borne to have recurrent catheterization as systematically followed as possible. Relief of bladder irritability, improvement of the condition of the urine, and especially in diminution of amount of pus, epithelial debris, and improvement in the specific gravity, reaction, odor and the presence of urea, have been usually observed where this plan has been followed. More recently he has given more time to the functional elimination test and has observed that careful preparation has influenced good results along this line. Improvement in elimination has also followed systematic use of normal saline solution by proctoclysis. He calls attention to the fact that the use of strontianum in low doses and covering long period of time should be given its care because not infrequently there are no results obtained from such means as the author has had results may intervene, such as irritation of the kidneys. The average period of preparatory treatment required in the author's cases has been from one to two weeks.

During anesthesia normal saline solution is given by hypodermoclysis in practically all of his cases. II notes several operators by remarking that

the liability to post-operative hemorrhage is much influenced by the carefulness with which enucleation is done. He lays stress upon the use of continuous irrigation.

In the perineal operation the author utilized metal inflow and outflow tube devised by his assistant, Hamer.

The handling of the patient is greatly facilitated by the separate and complete wrapping of each leg in a blanket which also facilitates the handling of whatever drainage apparatus may be employed.

The question of getting the patient early in the thor believes, to be fairly regarded as still debatable, getting the patient into the semi-upright position the first or second day following operation by a properly adjusted body support has seemed both beneficial and desirable.

He concludes by remarking that occasional occurrence of fistula is not necessarily an argument against any form of enucleation. He has had no permanent incontinence following in any of his cases operated by the median perineal incision, although it has persisted for greater or less length of time in some of them. Systematic and persistent use of dilatation of the prostatic urethra and vesical incise with the Koffman dilator has usually given prompt relief. LEVIN S. KOFF.

Koltschker. The After treatment of Suprapubic Prostatectomy. *Surg. Gynec. & Obst.* 9, 3, xvi, 33. By Surg. Gyrec & Obst.

The author discusses the after care in two divisions — the attention to the field of operation, and the prophylaxis of the general condition of the patient.

The most important factor in the local care is the maintenance of proper drainage of the bladder. This is accomplished by connecting the bladder tube through glass coupler with a long rubber tube, the distal end of which dips into a graduated vessel containing some antiseptic fluid, which is placed on a level lower than the body of the patient.

Continuous syphonage is started and maintained by injecting fluid through the long tube into the bladder and then submerging the free end of this tube, while it is still filled, into the fluid contained in the receiving vessel. Any interruption of syphonage is marked in the glass coupler by the appearance of air bubbles in which event the drainage is re-established by again injecting fluid. Once in 24 hours the bladder is disinfected with 3 per cent argyrol solution, and the silver saline dressing is renewed at the same time. After three days the bladder tube is removed and the bladder is flushed out by means of soft catheter and hand-syringe with 5000 silver solution. The urine then drains out of the abdominal fistula into the gauze and oiled dressing underneath which the abdominal skin is protected from the macerating influence of the urine by a thick coating of vaseline. This dressing is changed every time the moisture penetrates the uppermost layers of the padding. All special devices for catching the escaping urine

are superfluous. In case the patient should fail to start natural urination on the seventh day a few large steel sounds are passed. The granulations of the abdominal fistula are occasionally stimulated by cauterization with the silver nitrate stick. The application of acroet red has been devised against an account of the danger of anilin poisoning and the possibility of epithelialization of the sinus leading to the bladder. In case of a pronounced retardation of the closure of the abdominal fistula it is thoroughly cauterized with a galvano-cautery. A scraping of the sinus may lead to a very annoying hemorrhage. Intense infection of the suture line calls for early opening of all the layers so as to prevent sloughing of the fasciae. The cleaning up and healing of the infected area is greatly enhanced by prok and warm tubbing before each dressing.

Severe post-operative hemorrhage is checked by the introduction of Barnes bag into the rectum, where it is fully distended, and by exerting counter pressure through placing a heavy sandbag on the abdomen while the hips and knees of the patient are flexed. This procedure is preferable to opening of the bladder and packing, which manipulations are apt to produce shock, infection, and repetition of the hemorrhage upon the removal of the tampon. In order to enhance the coagulability of the blood, 10 cc of serum are injected hypodermatically. In case phosphatic crumbles should appear in the urine the bladder is repeatedly flushed with a 5000 salicylic acid solution until these concretions have disappeared. In rare cases granulations will persist at the former site of the prostate even after the abdominal fistula has closed. In such an event, after this fact has been ascertained by the cystoscope these granulations are scraped off and their site is cauterized by the aid of an operative cystoscope.

The general treatment the following points are to be observed. After the syphonage has been established continuous rectoclysis, by the drop method, is begun. A 3 per cent glucose solution being used. This solution is perfectly innocuous to the kidneys and is of great nutritive value, with a selective action on the heart. This is continued until the patient is able to take sufficient fluid by mouth. On the second day after the operation the patient is made to sit up in bed, and on the third day he is placed in an easy chair. Insufficient elimination through the kidneys is stimulated by the administration of diuretics. The heart action is always carefully watched, and if necessary regulated by digitalis. Urinary symptoms are also watched for and, if they appear are treated by sweating, hot packs over the renal regions, diuretic and, in case of very high tension, with venesection.

Freyer. A Series of 236 Cases of Total Enucleation of the Prostate Performed During the Twenty Years 1911-22. *Lancet* Lond., 9, 3, directly on. By Surg. Gyrec & Obst.

This article is a short review of the work of Freyer during 9 years in removal of the prostate by the

suprapubic route. He has performed 36 operations during those two years with a mortality of 4.66 per cent. The patients varied in age from 40 to 90 years, with an average of 60½ years. There were 65 octogenarians, eleven 70 years of age and the remainder younger. With one as young as 40 in whom stricture complicated the condition, Freyer performing an internal urethrotomy before removing the prostate.

Freyer brings out the point of suprapubic drainage and secondary removal of the prostate. He recites case (N 505) which presented with ver-larged bladder and in which he drained the bladder suprapubically and afterwards removed the prostate. This case suffered from uremic poisoning and the urine showed a specific gravity of only .005 and contained trace of albumin. The bladder contained 3 ounces. Freyer says: "This case illustrates one of the few conditions under which it is advisable to divide the operation into 2 stages."

Case N 503 is given to illustrate the difficulties presented by an extremely fat patient. In this case the abdominal fat was 6 inches thick before the bladder was reached. Freyer does not suggest method to diminish the difficulties of approach of the abdominal wall.

He goes on to state the prostate disease as complexed by stone. Among these 90 cases there were 6 deaths or 8.4 per cent mortality while among the remaining 846 uncomplicated lith stone there were 4 deaths, or 4.84 per cent so that the mortality in the former was nearly double that in the latter.

The article is very plausibly and suggests that the last word has been said in prostatic surgery by this method. Freyer does not indicate what his pre-operative or post-operative treatment of these cases has been nor does he suggest anything regarding the number of cases of malignancy in this series nor his indications for operating or not operating.

A. L. STOWERS

Cabot. The Operative Treatment of Prostatic Hypertrophy. *Lancet* (Ch. 9) 1917, 700.

By Surg. Gynec. & Obs.

(1) But first let us point in the doing of prostatectomy the object being to remove the obstruction to miction with but as little risk as is possible. Second, as little damage to other structures and functions as may be. Then, taking up consideration of the most important anatomical points bearing upon the prostate and its environment he considers the division of the various lobes of the gland, as follows: (1) The posterior lobe that portion of the prostate which lies behind the ejaculatory ducts and comes in contact with the urethra, only that portion which lies in front of the openings of the ejaculatory ducts. (2) The middle lobe that portion lying in front of the ejaculatory ducts and behind the veru montanum. (3) The lateral lobes these form the side walls of the urethra and generally fuse on their anterior aspect thus forming the

roof. He then quotes the work of Tandler and Zuckerkaudl as having demonstrated in satisfactory manner that the middle lobe as they define it is the chief and practically the only offender in hypertrophy.

Further the author differentiates what is so little understood — the radical distinction between the anatomical capsule of the prostate and the surgical capsule. The latter is not in fact capsule at all, but is the prostate itself.

The relation of the hypertrophied prostate to the internal vesical sphincter will depend upon the position and direction in which the enlargement takes place.

Summing up the most important points in regard to the anatomy he states: (1) Only certain portions of the prostate are involved in the process known as hypertrophy. (2) The prostate itself is compressed by the tumor and lies chiefly on the inferior and lateral aspects of the mass. (3) The vesical and urethral aspects of the prostate in hypertrophy are covered only by the mucous membrane. (4) The ejaculatory ducts lie wholly behind the tumor, hardly if ever extends further forward than the posterior border of the veru montanum.

Surgical principles involved in the treatment of hypertrophy. The author bases his subsequent estimate upon what he believes to be the average result of the hands of first class surgeons, and not upon results obtained by few highly trained specialists. He then cites the 3 forms of perineal prostatectomy, namely the intraurethral enucleation and the transperineal method — the operation of Young and the suprapubic method of removal.

Quoting the occurrence of fistula he states: "The nature of this operation is such that in many hands fistula will occur the commonest urinary or more occasionally the rectal. In the vast majority of cases they close in a few weeks or months, but occasionally persist for years, and must be regarded as an annoying complication not infrequently consequent upon these operations. This has bearing upon the perineal route. In the hands of good operators he further states the mortality is low. Referring to fistula following enucleation by the suprapubic route he states that the only form which can occur is that communicating directly with the bladder and this will happen only in case of failure to remove the obstruction. In the presence of sclerotic process without hypertrophy failure to remove the obstruction is by no means rare."

And, the occurrence of fistula is direct indication of failure to remove the obstruction thus of course being referable only to the persistent fistula.

As to the mortality he places it as high as 5 per cent not withstanding the remarkable statistics of Freyer. The cause of this high rate he cites as being probably more or less due to the difficulty with which hemorrhage can be controlled, the production of shock and greater liability to infection, due probably to less efficient drainage. He further states that he believes more efficient control of

bleeding can be accomplished by thorough exposure of the field of operation, as advocated by Kollischer.

Briefly summarized, the relative merits of supra-pubic and perineal operations in their present state of development seem to the author to be: The suprapubic route is the anatomically correct approach. It attacks the hypertrophied portion at a point where it can be reached with less destruction of tissue and with the greatest certainty of complete removal of the obstructing portion. It does less damage to other structures, interferes less with other functions, and is followed by fewer complications. It is more certain to result in cure. The perineal operation shows at the present time a definitely lower mortality. It is a more difficult surgical procedure, no matter what technique be selected. It is more likely to damage other structures and functions, and is less certain to result in cure. Cabot is prepared to assent to the views of Carlier that the perineal operation survives only on account of certain contraindications of the suprapubic method. L. S. KOLLISCHER.

MISCELLANEOUS

Federhen. The Colon Bacillus in Genito-Urinary Diseases. *Trans Am Genito-Urin Surg Soc*, 9, 3, May. By Surg. Gynec. & Obst.

By an extensive review of the literature the author shows that the subject has been receiving special attention during the past seven years. It could appear that the advanced knowledge of tuberculosis of the urinary tract had awakened the comprehension of primary colon bacillus infection of the same, and that this infection was proving to be of serious import. It is certain that the infection is usually hematogenous and descending, but there is evidence showing that ascending infection starting externally at the urethra, does take place, especially in women. The urethra and bladder nevertheless may escape in olvement the infection spending itself in the kidney usually the right. Direct lymphatic connection between the hepatic flexure and the right kidney has been anatomically demonstrated. It is probable that ascular lymph tract exists between the rectum and bladder. The disease is oft overlooked especially in children because the general symptoms which are those of a infectious disease often mask the slight local symptoms. Neglected the local symptoms become severe and attract attention but by then the damage to the kidney may have grown to serious proportions.

General treatment includes diuretics, urinary antiseptics, careful attention to diet and to intestinal conditions.

Vaccine therapy has not been of avail partly because there are many varieties of colon bacillus and isolation of the causative one is difficult.

Radical surgical intervention may become imperative and does when pyelonephritis or pyonephrosis exists.

The author concludes with a brief analysis of etiological factors, symptoms, and lesions presented

by sixteen cases in his practice tending to confirm the details of his paper.

Porter. Uric Acid Calculi. *N. F. M. J.*, 9, 3, xviii, By Surg., Gynec. & Obst.

The author states that uric acid is formed normally in the secretory cells lining the uriniferous tubules. He also states that phenol when taken by mouth is changed in the stomach into sodium and potassium carbonates according to the following equation:



The carbolat is absorbed into the blood stream and is excreted by the dialysing tufts of the kidney. It passes down the lumen of the uriniferous tubules until it reaches the location at which the uric acid is constantly being formed. When the carbonates come in contact with free uric acid, the two react upon each other and form a somewhat soluble urate of soda, with liberation of carbonic acid as shown in the following equation:



This is explained the favorable effect of phenol in preventing the formation of uric acid urinary stones. V. D. LEBMANN.

Walker. Recent Work in Genito-Urinary Surgery. *Practitioner*, Lond., 9, 3, xc, 70. By Surg., Gynec. & Obst.

In this article is presented a review of the literature on recent work in genito-urinary surgery. The author quotes varying opinions of authorities in America and Europe without attempting to decide between them, although in certain instances he gives the results of his personal experience.

Among the means of estimating renal function are discussed the experimental polyuria test of Albarran, the comparative study of the urea in the blood and that in the urine, and the indigocarmine and phloridain test. In cases where catheterization of the ureters is impossible owing to the condition of the bladder, Legueu recommends temporary ligature of one ureter or suprapubic cystostomy and direct catheterization of the ureters. The author recommends in such difficult cases which are generally those of tuberculosis that course of new tuberculin of some months duration be given which may so modify the vesical spasm that catheterization of the ureter becomes possible. Failing this, exploratory nephrotomy of the supposed healthy kidney gives most information, preparatory to a nephrectomy if the other kidney should be diseased be unilateral. Paschalis reports sixteen cases from Zöckler's clinic of bilateral exposure of the kidney in tuberculosis in which advanced changes in the bladder rendered other methods of diagnosis impossible. This method of exploration is recommended, especially in very young children, whom other means of examination are very difficult.

Very good views are expressed of the results of decapsulation of the kidney. Leebmann declares

It is indicated in the so-called renal neuralgia in angio-neurotic hemorrhages and especially in emilia occurring in cut nephritis chronic nephritis, however, is not permanently influenced by the operation. Poten states that no cases of decapsulation in eclampsia are now on record. The moderate and remarkable improvement and recovery in certain number of cases. Sippel, in forty-six operated eclampsia cases, found thirty recovered from the disease who otherwise would certainly have died. Poten's statistics however show that the mortality of eclampsia without operation was 13 per cent while that of decapsulated cases was 40.7 per cent. It regards the method as strong in theory and useless in practice. Tyson states that in chronic nephritis the cases most favorable for decapsulation are those of the chronic parenchymatous type and those associated with stubborn anasarca.

From experiments performed on rabbits, Moore and Corbett have drawn the following conclusions in regard to the damage done to the kidney by operation. The incision causes less damage than the sutures which are introduced to control hemorrhage. Sutures passed through the renal capsule alone are insufficient to control bleeding. Multiple sutures through the kidney substance cause most extensive destruction. Sutures passing through the pyramids and knotted on the outside of the kidney cause least damage and should be preferred.

In a study on the subject of nephrectomy, Gensler states that mortality following primary nephrectomy is less than that following secondary nephrectomy although in many cases the condition of the patient is too precarious for anything but nephrectomy to be the first operation.

Jacobson and Klier declare that post-operative pyelitis is more common than is usually supposed and is often found in cases in which no catheter has been used. Retention of urine, trauma, and coagulation are the most common predisposing causes and the colon bacillus is the usual infecting agent. Good results have been obtained by injecting salt the urethra with a 1 per cent solution of boric acid with urethral syringe.

Farber Sims advocates the transperitoneal route in operations on the bladder and prostate. He bases his view on theoretical reasoning and on the unfortunate results he has seen in the work of others. He declares transperitoneal cystotomy is an ideal operation and should always be used as far as infection is concerned.

At the Second Congress of the Association Internationale d'Urologie (London 1909) the following

reports that there is a consensus of opinion that resections of the bladder for new growth should be extensive. Tenick advised total removal of the bladder in recurrent cases, and in non-operated cases of multiple papillomata which are large and do not affect the ureteric orifices. If infiltration of the bladder wall by a malignant growth is palpable from the rectum it is inoperable. Kowling hopes that the mortality of total extirpation of the bladder may in the future be considerably smaller than that of partial resection. He admits, however, that the danger of ascending pyelonephritis in the transplanted ureters, is a difficult problem to solve.

In regard to the causation of simple enlargement of the prostate, Wilson and McGrath do not regard any of the hypotheses at present held as acceptable, nor can they advance any satisfactory theory of their own. Pedersen would exclude from operation all cases of enlarged prostate in which there is chronic distention of the bladder on the ground that the paralyzed muscle has lost all power of recovery, and that the removal of the prostate gland would not benefit the symptoms. This theory does not agree with the striking results of Freyer's work, here in many cases, even after

of complete catheterization the bladder regains its tone when the obstruction is removed. Snyder states that three factors should be considered when choosing the particular operation to be employed for the removal of prostatic obstruction: first, the removal of the obstruction, second, as a result certain, that the patient will be able to control the bladder and not suffer from post-operative urinary incontinence, third, preservation of the ejaculatory ducts and sexual capacity. The suprapubic route affords the closest access to the obstructing lobe; it does not damage the internal sphincter of the bladder as the perineal operation very frequently does, and the sexual function is more likely to be preserved.

Various statistics on the mortality following the various operations of prostatectomy are reviewed. Young had mortality of 10 per cent in 45 cases of suprapubic prostatectomy and 3.77 per cent in 450 cases of perineal prostatectomy. Fisher had mortality of 5.6 per cent in 1,000 cases of suprapubic prostatectomy. Where prostatic disease is complicated by stone in the bladder, his mortality was 8.84 per cent. Walker had mortality of 5 per cent in 100 cases of suprapubic prostatectomy.

Bremnerman uses nitrous oxide gas and oxygen as an anesthetic for prostatectomy and considers it rapid and safe but contra-indicated in myocarditis.

H. L. S. Ross.

SURGERY OF THE EYE AND EAR

EYE

M. Kensie. Cystic Distention of the Lachrymal Sac. Operation on Nasal Duct in the Nose (West's Operation). *Proc Roy Soc. Med.* 9 3. By Surg. Gynec. & Obst.

The patient, woman 3 years old, had been suffering from ethmoiditis for some years. Four months ago after the removal of polypi from the left side of the nose, she noticed swelling at the inner canthus of the left eye corresponding in situation with the lachrymal sac. It was tense and fluctuating and could be emptied into the nose by steadily pressing upon it.

West's operation was performed. Lachrymal probes which formerly met with obstruction in their route to and the inferior meatus, now passed freely into the middle meatus. So far there has been no return of the swelling. **EDWARD L. COE, M.D.**

Wright. The Extirpation of the Lachrymal Sac. *Verhues Med.* 9 3. 100. By Surg., Gynec. & Obst.

The indications for extirpation of the sac are summed up by Wright as follows:

All cases of blepharitis with history of repeated probing.

A stenosis of the duct which does not yield easily and quickly to a probe.

If the results of the description of the operation as described by Meier. **C. G. D. ALLEN.**

Kenyon. Report of a Case of Congenital Ptosis of Both Eyes Relieved by the Alastair Operation. *Trans. Am. Ophth. Soc.* 9 3. May. By Surg. Gynec. & Obst.

The best results obtained in this case is the author's policy in reporting it. Having met with failure to correct the deformity by means of the de Graef method of operation and the results being far from satisfactory in cases in which the Panas operation was employed the Alastair was used in this case. Briefly the technique is as follows:

After the usual aseptic precautions, the tendon of the superior rectus was exposed and the incision in the conjunctiva carried upward, an assistant pulling the lid as far upward as possible with the finger; the lid is then inverted and the incision carried through the sub-tarsal and on to the conjunctiva of the lid at the upper border of the tarsal cartilage. A tendon hook is now passed under the tendon of the muscle and a strong silk suture threaded on two short curved needles having been prepared, one of the needles is passed through the tendon and out again so as to include its middle 1/4. The suture

is now firmly tied round this middle 1/4 and that part of the tendon cut from its attachment to the globe and the incision extended upward until a narrow ribbon of muscle about 1 mm. long is isolated.

Then with dull pointed scissors a channel is dissected from the margin of the tarsus where the conjunctival incision ended and between the tarsus and the skin to the ciliary margin. One of the needles is then passed through the channel and made to emerge through the skin just above the cilia near the center of the lid, and the second needle is passed likewise, piercing the skin 3 mm. from the first. Gentle traction is next made on the sutures and the muscle slip is pulled into this channel in the lid until finally its end is drawn quite down to the ciliary margin when the sutures are tied over a small piece of folded gauze. The incision in the conjunctiva is sutured with great care with fine silk, that of the globe over the remaining superior rectus muscle and that of the lid over the muscle slip attached in the lid.

Especial care should be taken to carefully suture the conjunctiva at the fornix, as disregard of this precaution has led to prolapse of fornix conjunctiva.

The immediate effect should be considerably over correction and precautions should be taken to avoid exposure ulcer.

The patient, age six years had congenital ptosis of both eyes. The operations were done under ether anesthesia. Photographs were taken three years later which show that the effect is permanent. There is very slight limitation of motion observed in either eye.

Tyson. A Case of Congenital Apron of the Palpebral Conjunctiva. *Trans. Am. Ophth. Soc.* 9 3. May. By Surg. Gynec. & Obst.

The patient was a woman, age 40 years, native of Hungary. Upon eversion of the upper lid of her left eye, the tarsal portion of the conjunctiva presented an appearance as if a fold of conjunctiva extending nearly the entire length of the lid 8 mm. long and 5 mm. wide near the fornix, had been pinched with a pair of forceps, had been lifted up and then pressed back against the center of the tarsus and had adhered to it along the upper edge of the fold, which was slightly irregular in contour. Near the temporal margin of the palpebral conjunctiva, 3 mm. from the external canthus, was a horizontal slit-like opening 4 mm. long which admitted the largest Bowman probe, which could be passed between the layers of the conjunctival fold, a distance of 5 mm. almost to the inner angle of the eye. About midway a fibrous band could be detected which caused slight narrowing of that point.

The color of the fold or plica appeared trifle gray compared with the normal conjunctiva, but as transparent enough for the probe to be seen through it and observed the entire length. No other malformation of the lid was present, nor was there any evidence or history of trauma, trachoma or conjunctival disease. As to the etiology of the malformation, the author agrees with Schapirager who stated that admitting that during the embryonal life the amnion adhered to the layers from which the lids would be formed and that by pulling, a fold of the future conjunctiva originated. Later the mass separated from these tissues, and the fold remained permanently. A striking coincidence is the fact that nine out of the eleven cases reported in literature came from Eastern Europe.

Clark. Radical Treatment of Tumor of the Orbit. *Ann. St. M. J.* 9, 3, 12, 7.

By Surg. Gynec. & Obst.

Clark reports the treatment of a tumor of the orbit of a child 1 year old with exophthalmos of at least 1 cm. Duration three or four months found normal, slight limitation of movement. A thrill palpation and firm pressure on eye in the direction of the pex produced no apparent yielding. A firm pressure bandage used for some weeks with no improvement.

C. rhinotomy as performed. Large conjunctival incision made and external rectus as detached. The tumor mass could be seen to be made up of fairly large vessels and situated in the deeper part of the muscle cone. At base of milligram of radium was inserted as deeply as possible without causing and left for 1 hour. Considerable reduction took place after seven days. At the end of week rather decided improvement in the exophthalmos as present. The operation repeated 1 centimeter days later. Seven months after the last operation most marked improvement had taken place. The affected eye as slightly more prominent than the fellow. The movement of the eye were normal. C. G. DALLING.

De Schweinitz and Shumway. Epibulbar Carcinoma. Histological Examination of the Specimen. *J. Am. Ophth. Soc.* 9, 3, 17.

By Surg. Gynec. & Obst.

This growth began in the left eye of a man aged 34, fourteen years prior to the excision of the eye. Three months after excision there was recurrence in the orbit the contents of which were therefore evacuated. Microscopic examination demonstrated that the growth was primary carcinoma of the conjunctiva beginning at the limbus, that it may possibly have started as papilloma and as the result of cauterization may have been stimulated to rapid growth and then assumed malignant type. The authors reviewed briefly the literature of the subject and called attention to the percentage of cases in which perforation of the eyeball occurs in these circumstances.

namely about thirty-seven per cent. In their own specimen perforation had not occurred, although the growth was of long standing. They also called attention to the youth of the patient, namely that the growth began when he was only 9 years of age.

Small epibulbar carcinoma is found in individuals over 40 years of age. There are however a number of records indicating that this tumor may appear even as early as the twelfth and thirteenth years of life. One reporter namely Rogman describes an epibulbar carcinoma in a patient 20 months old. The authors believed that the safest procedure in the presence of epibulbar carcinoma was thorough excision of the eyeball although in very few not more than small growths especially those at a distance from the limbus, have been excised without recurrence.

Stallworth. Corneal Ulceration. *St. M. J.* 9, 3, 16.

By Surg. Gynec. & Obst.

The article begins with concise consideration of the anatomy and physiology of the cornea. The author then speaks of the frequency of inflammations of the cornea as seen in the free dispensaries due to the poor hygienic cleanliness, and the lowered resistance of this class of patients.

The first stage of inflammation of the cornea is infiltration during which the leucocytes migrate to the diseased area. As a consequence of this the corneal vessels in transparency taking on smoked glass appearance. Absorption may take place in this stage and the process heal or the amount of exudate becomes incompatible with the maintaining and absorptive powers of the cornea. There is localized breaking down and ulceration of the latter structure. This localized loss of substance is recognized as depression. If healing begins the edges and the floor of the ulcer quite smooth and glistening luster and the process now tends to regress to stage. After destruction of some of the corneal stroma there is some opacity left.

Simple ulcer. These are the small marginal ulcers generally found in children, and among them are included the phlyctenules that have broken down. The symptoms are those of deep corneal ulcer. The treatment advised is mydriatic and irrigation with 5 per cent bichloride of mercury every three hours. In the phlyctenular ulceration per cent yellow oxide solve with the proper constitutional treatment.

Ulcer serpens or seriginous ulcer follows the severe infections, usually pneumococcus especially when these result from trauma. They appear as disk, more deeply infiltrated around the edges, with the rest of the cornea presenting a normal appearance. A severe iritis and an ichthyiform concomitant conditions. The symptoms are very violent and the ulcer has a marked tendency to spread.

Non-suppurating ulcers. The dendritic ulcers are so named because of the peculiar shape not in-

like the branches of a twig. It occurs in young people of low vitality. The organism causing it has not been isolated. The symptoms are very mild. Zinc chloride solution (1% per cent) and treatment of the general condition is advised.

Latent type of ulcer. This form of ulcer resembles the dendritic but occurs in people that give history of malarial attacks. General treatment with quinine and arsenic will cause it to disappear. Ulcers associated with gonorrheal ophthalmia, trachoma and herpes of the cornea are spoken of.

EARLE B. FOWLER

Chance Degeneration of the Corneas of a Man and His Adult Son. *T. Am. Ophth. Soc.* 93 May.
By Surg. Gynec. & Obst.

These cases are examples of nodular degeneration of the cornea as found in two or more generations or in several members of a family. The men were aged 54 and 6 respectively and each had been practically blind since infancy. Their members of their family of five generations are known to be afflicted with serious or unusual affections of their sight.

Each of all four corneas as occupied by large but faint disk which covered the central two thirds of the corneal area, while the outer third including the limbus was perfectly transparent and unaffected. The disks consisted of fine dotted groups of yellowish gray flocculent material or coagula, arranged in more or less radiating lines situated beneath Bowman's membrane and in the anterior layers of the stroma, as though resting between the membrane and the stroma. Here and there were glistening points like crystals. At the apex of the summit there were two larger bubble-like bodies which projected beyond the general surface of the cornea. The epithelium was intact and glistening. The discoid areas terminated somewhat unevenly in an indistinct radiating network. The center of each disk was condensed, outside of that was more or less transparent zone while beyond as another denser portion which ended in more or less diamond-shaped reticulations. The corneal membrane beyond the areas was quite clear and healthy showing neither infiltrate nor vessels. The crypts of the iris were deep the reactions prompt. A view of the fundus could be obtained but the vitreous bodies were presumably clear and the retinas believed to be healthy.

The son's corneas presented the same characteristics as the father's except that the opacities were not so dense and were more reticulate. The surfaces were even, smooth and polished and distinctly sensitive.

The opacities were circumscribed and bilateral of approximately equal size in each eye and each person like the other's except that the son's were less dense or rather the lines were not so numerous. At first glance they looked like the residue of a interstitial keratitis. At the center of the patches the masses were so close together as to be without arrangement and it was only at the periphery that

the reticulation was apparent. There were no signs of inflammation, no pannus nor obliterated vessels. The irises were healthy. There was no criss-cross latticing of fine threads, as in Harb's and Freund's cases nor pigment dots as in Doyne and Stephen's, and the surfaces were smooth as in Fehr's.

Each man was subjected to the Wassermann and to tuberculin tests, with negative results. A thorough study of their chemico-metabolism showed the same comparative percentages as found in healthy individuals and so also did the blood-co test with the differential countings.

Harrower: Two Cases of Conical Cornea with Cataract. *T. Am. Ophth. Soc.* 93 May.
By Surg. Gynec. & Obst.

These cases were reported in account of their rarity. They both occurred in the author's practice within the period of a year. One had thick nebula on the periphery of the cone. This was man of 67 who had been led by an attendant for two years.

He got vision enough to go about alone, and could read Jaeger's No. 8 although no glasses improved him.

The second case was a woman who had been operated on two weeks before this report was made. The vision was fairly good at the time the report was presented.

Samner: Control of the Eye in Cataract Operations. *Ophth. Rev.*, 93 XXX, 95.
By Surg. Gynec. & Obst.

The necessity of the absolute control of the lids in the intracapsular operation, as emphasized by Smith, is brought out first in this article. Samner then describes his method of lid control with pictures of his speculum and photographs of it in use, a method which he believes does away with the need of trained assistants.

In this speculum the portion of the upper blade which slips under the eyelid is narrower and projects under the lid much farther than in the rhodox instrument. The handle is curved to accommodate the index finger and the ball of the thumb rests on the spring. The assistant holds the speculum between the index finger and the thumb taking a firm grasp of it, while the other fingers lie against the side of the face. Pressure of the thumb on the spring end of the speculum acting through the index finger as fulcrum tilts up the eyelids to whatever extent is necessary. The assistant's other hand is spread out over the patient's head and, the eyebrow having been well drawn back, his thumb presses against the upper edge of the right. By flexing or extending the rest the upper blade may be made to slide under whatever portion of the upper lid most exposure is necessary according to the direction that the patient rolls his eye. By pronating or subinating the forearm the correct amount of lift of the eyelids off the eyeball can be obtained. The correct amount of the upper lid is enough room to clearly see the fornix where the patient may not roll his cornea out of sight. The lower lid is to be held just off the eyeball.

with "bad squizzer" the lids should be held off the eye
EARL B. FOWLER

Reader. A Method of Dealing with the Capsule After Cataract Operations. *Ophth. Rev.* 9:3, xxi, 184
By Serg. Gyner & Olm.

The author emphasizes the importance of the complete removal of the capsule after cataract operation and the difficulty of doing this by the usual methods. The method that he has devised, and for which he claims very satisfactory results, consists in making a 1 mm. incision near the border of the cornea with an eye needle. Next a small hook similar to Tyrrel's iris hook, the curve of which is 1 mm. wide is passed through the opening made by the needle. The point of the hook is reasonably sharp and is almost but not quite horizontal to the shaft. The hook is passed into the pupil through an opening made by the needle under the opposite border of the iris. Traction is then made on the hook until it is in the proximal margin of the iris when the point is turned so that it passes over the edge of the iris and through the capsule ensuring firm hold. It is then withdrawn through the corneal incision, and the operation is complete.
EARL B. FOWLER

Millett. The Intracapsular Cataract Operation from the Viewpoint of an Assistant. *Ophth. M. J.* 3:15, 73
By Serg. Gyner & Olm.

Millett again discusses the work of the assistants in the intracapsular operation and says some operators hold this function to be almost as important as that of the operator himself. He speaks of the assistant's relation to the operator and believes the intra-capsular operation will average better results than the extracapsular method.
C. G. DARRIN

Greenwood. Sarcoma of the Choroid Not Due to Irritation from the Ordinary Transillumination. *J. Am. Ophth. Soc.* 9:5, May
By Serg. Gyner & Olm.

Post-equatorial choroidal sarcoma is not readily demonstrated by the use of the ordinary transillumination and is situated far back so not at all so and often in such cases the diaphanoscope may show nothing. If however the transillumination tip could be placed at the back of the eye such tumors would be easily demonstrated and one object in reporting this case is to call attention to the value of the modified transillumination devised by Lancaster.

This consists of a curved metal tube about the size of No. 9 Theobald probe and having in the concave surface at the tip, a small opening through which light is projected from a small but powerful electric light. That which is a hook with a factor long can be attached to the socket of a small pocket battery and then the tip placed behind the eye through a small opening in the conjunctiva and Tenon's capsule.

The case reported is that of young woman

aged 31 who came with an eye of the stony hard condition of absolute glaucoma, with no possibility of using the ophthalmoscope or testing the field of vision. The Wurmman transillumination showed nothing. A sarcoma of the choroid was suspected from the age of the patient, the severity of the glaucoma, and the lack of trouble in the other eye. A sclerectomy relieved the glaucoma and when the eye cleared up it was possible to use the ophthalmoscope and see that there was growth in the back of the eye. Using the ordinary transillumination on the enucleated eye, an absence of light transmission was shown when the tip was held close to the optic nerve. On removing it more than 4 mm. from the optic nerve the light transmission reappeared.

Section of the eye showed spindle-cell melanotic sarcoma of the choroid 1 cm. in diameter with its center exactly over the optic nerve head.

The use of transillumination which could be placed close to the optic nerve could have obtained in this case the other operations.

Harrower. Two Cases of Chronic Glaucoma Simplex Treated by Iridectomy. *J. Am. Ophth. Soc.* 9:3, May
By Serg. Gyner & Olm.

The author gives an extract from Borthen's article describing Borthen's reason for operating, and description of the operation. Borthen's results are so excellent that the author is encouraged to follow his method which he has in other cases reported. In both these cases the tension was reduced to normal, and the field decidedly enlarged.

In the first case a woman of 60 the ultimate tension at the end of ten months as good as before the operation. Tension normal, and the field enlarged. The second case was a man 59 years old the field was decidedly enlarged, the tension reduced to normal and the vision improved from 8/20 to 20/40. This has remained so for ten months after the operation. The author hopes to report more cases in the near future.

Werner. Orbital Cellulitis; Fatal Case Following Disease of the Accessory Sinuses of the Nose. *N. Y. M. J.* 9:3, xxi, 866
By Serg. Gyner & Olm.

It is well-known fact that the nose and its accessory cavities are etiologically responsible for many of the orbital and ocular complications with which we meet. Owing to the proximity of these cavities, disease is easily transmitted to the orbit, either through the vascular return or by causes and destruction of the intervening bony wall or by dehiscences, gaps or defects in this structure.

The case reported is that of merchant, 46 years of age, with exceptionally clear history. The only feature of importance was a swelling of the right side of the face extending over a period of years. The acute symptoms were swelling of both eyelids, the same side reddening of the same, intermittent pain and pain on movement of the eyeball, the whole growing worse over a period

of three weeks. Vision was normal. Examination of the nose revealed turbinate hypertrophy with a profuse brownish dried discharge. There was dullness on transillumination on the diseased side and no pupillary reflex, but the frontal sinus was clear. The temperature was 100.5 F. The antrum was punctured through the inferior meatus, irrigation bringing out brown foul-smelling mucus with dirty whitish clumps. Pain was intense that night and by morning phlegmonous orbit. Cellulitis had set in. Operation was advised. The anterior and posterior ethmoids were broken down and filled with granulation tissue and small polypoid masses. A direct opening into the orbit was made out. The antrum was also drained. Four days later the inflammation had progressed to such an extent that exenteration of the orbit was performed. There was marked improvement for four days, then meningitis involvement began and death came eight days after the second operation. Autopsy was performed. Culture contained streptococci.

The case brings out the gravity of chronic sinus disease and some deep questions of operative indications which the author discusses.

CHARLES B. F.

Flaher Traumatic Posterior Lenticon. *Opht. Rev.* 9:3, 1911, 97. By Surg. Gynec. & Obst.

Flaher refers to the collection of reported cases by Madame Gourfein-Welt and gives her conclusions (that true posterior lenticon is a diagnosable clinically on condition that its signs satisfied (1) deformity of the image obtained from the posterior surface of the lens, (2) the characteristic alteration in refraction of the peripheral and axial portions of the lens. It includes the possible explanations of this condition and the statement of Madame Gourfein-Welt that no reliable case of posterior lenticon as an acquired condition has been recorded.

The case reported is that of a medical man, 40 years of age. A blow over the right malar bone left him with black eye. Shortly after this he noted the vision in the right eye was blurring, causing difficulty with his near work. Three weeks after the accident Right V. 5/5 but only 1/2 Jaeger at thirty inches. Fundus and fields were normal. Diseases of the central nervous system were eliminated and a reading glass prescribed. Fifteen months later R.V. 5/30 with -0.5 D. Cyl axis vertical 5/30 partly. The pupils were dilated with homatropine and cocaine and examination revealed definite protrusion of the lens at its posterior pole—an undoubted posterior lenticon. Vision through the peripheral part of the lens 5/6 without glasses. A Catherine-wheel appearance of the retinoscopic shadow and a dull central reflex were conspicuous. Nine months later refraction as more myopic and Jaeger was read at 12 inches without glasses. Five and one half years later the lens as complete opaque pupil and tension normal and the field satisfactory.

The interpretation of the case appears to be that

the concussion injury had caused a minute rupture of the capsule of the lens at its posterior pole. This was so minute that at first it caused no alteration in the curvature of the lens but it had the effect of abolishing or at least reducing its power of increasing in convexity when the ciliary muscles were thrown into action. Gradually a small hernia of the lens substance through the rupture produced the posterior lenticon so that eleven months the striking change reported in the refraction developed and the posterior lenticon which was recognized fifteen months after the accident explained this phenomenon. The sequel of events is sufficient to establish the accuracy of this explanation. If it be admitted as a case of true posterior lenticon, it appears to be the first on record as an acquired condition.

CHARLES B. FOWLER

EAR.

Patterson Epithelioma of the Auricle and Cervical Glands; Removal of Auricle and Glands. *Lancet*, Lond. 19:3, 1909, 96.

B) Surg., Gynec. & Obst.

The patient was a man aged 6. His right ear as injured six months previously. On the outer aspect there was an indurated non-ulcerated area raised above the surface and about the size of a shilling. Under the microscope the growth showed the typical structure of an epithelioma. The glands in the upper part of the right anterior triangle were definitely enlarged and very considerable mass lay high up underneath the sterno-mastoid muscle.

The second step in the operation was the exposure of the lateral sinus in the mastoid and the temporary occlusion of it was done by packing ribbon gauze between this and the skull wall. Then followed the removal of the auricle skin, and soft structures over the mastoid. The internal jugular as exposed in the neck and divided between ligatures. A large part of the sterno-mastoid muscle was removed with the glands, fascia, and the jugular vein, the vein being divided as close as possible to the base of the skull. A dissection of all of the axillary glands in the lower part of the neck was made. Deficiency of covering for the wound was made up by skin graft.

Scott made numerous operations of the rays as a prophylactic measure. Only eleven months have elapsed since the operation and it is therefore too early to judge of the ultimate results.

The points of interest in the case are: 1. Such extensive glandular involvement occurring in association with comparatively limited growth on the auricle. 2. History of trauma six months previously. 3. The preliminary occlusion of the lateral sinus. This facilitates the removal of the lymphatic structures along the jugular up to the base of the skull. It prevents flooding of the wound from a nick or tear in this vessel. The author says he has not seen this method described and intends to use it in connection with the removal of enlarged glands in cases of malignant disease of the pharynx, tonsils, etc.

CHARLES B. FOWLER

Bryant Th. Protective Mastoid Operation. *J Am Otol Soc* 9 3, May. By Surg. Gynec. & Obst.

As a adjunct to the curative endeavors of nature the protective mastoid operation enters into consideration when milder measures can no longer be expected to relieve the existing lesion. have filed to do. It finds its definite indications in

All cases of middle ear suppuration resist to mild treatment, but with some residual hearing which will become progressively impaired because of the extension of keratosis and increased middle ear contraction associated with the destructive process.

Possible causes of toxic absorption due to middle ear suppuration (with or without mastoid complications) which may be the source of the toxemia. By checking the suppuration of the ear, the protective operation destroys this source of infection.

3. Cases of middle ear suppuration (with or without mastoid involvement) which may be the focus of infection causing serious complications such as brain abscess, sinus thrombosis, or meningitis.

The selection of the protective mastoid procedure in given case of ear suppuration is called for by presumptive evidence of threatened serious complications or indications that the suppuration will not subside without this intervention, or in turn to save the hearing. The true elective procedures—conservative radical, modified radical, or simple mastoid—have the object from pathological standpoint to stop the suppuration from protective standpoint to forestall complications from functional standpoint, to preserve or improve the hearing.

The several types of radical mastoid operations become protective in the cases of chronic middle ear suppuration because they annihilate the infectious focus of the discharging ear which serves as the distributing center of more or less virulent pyogenic micro-organisms. At the same time they suppress the source of bacterial poisons and inhibit the danger of toxic absorption, permitting the restoration of the patient's normal health after the ear suppuration has been effectually controlled. While arresting the chronic middle ear suppuration the radical mastoid operations at the same time safeguard against terminal complications such as brain abscess, sinus thrombosis meningitis, broncho-pneumonia, nephritis, pericarditis, endocarditis, erysipelas, and bacteremia.

The varied technique of mastoid procedures, as derived by different writers for the radical cure of ear suppuration is uniformly based on the common principle of obliteration of the mastoid antrum. The author's preferred technique is the one least wasteful of tissue and in his conservative radical mastoid, in cases where the middle ear structures are lost or past all functional utility the middle ear is not cauterized and no tissue is removed from it. The antrum is opened widely into the auditory canal

the outer anterior wall of the attic is removed with its contents. The Eustachian tube is preferably kept open. The formation of a cicatricial drum-membrane is not hindered in any way. Results. Arrest of suppuration, a stable middle ear cicatricial condition, no painful dressings, shortened convalescence, no disfigurement and, taking into consideration the loss of the middle ear mechanism, maximum of hearing with improvement beyond the functional capacity prior to the operation.

The modified radical mastoid operation is adapted to radical cure of chronic middle ear suppuration when the middle ear sound transmitting mechanism is still capable of some functional activity. The operation field is approached as in the conservative radical but without obliteration of the attic, which is opened only as far as the preservation of the ossicles in position will allow. Although the results in many ways resemble those obtained in the conservative radical mastoid, the modified operation serves to shorten the convalescence, and high degree of hearing, often above normal, may be secured in view of the fact that the permanence of certain degree of middle ear functional capacity is required for the performance of the operation. The hearing is improved beyond what it was prior to the intervention also in this operation.

In numerous cases of cut or subcut middle ear suppuration, with or without mastoid complications, the mastoid operation is called for as protection when there is danger of the establishment of chronic middle ear suppuration which will certainly necessitate radical mastoid operation. The indications for the operation in these cases are based upon the Röntgen ray which should be employed in all acute cases of middle ear suppuration. Arrest of suppuration, stable middle ear condition, no painful dressings, moderately short convalescence—such are the results of the author's modified radical operation in acute cases of middle ear suppuration in solid mastoid bones. The results for the hearing are especially favorable and additional may actually become superior to the degree existing before the ear suppuration.

Infectious middle ear disease acute or chronic, with diagram of pneumatic cells communicating with the antrum calls for protective mastoid operation in order to avert the danger from imperfect drainage during the incubation stage of mastoid abscess or in resolving suppuration.

The author's simple mastoid operation includes the removal of the mastoid process, the obliteration of all affected bone, the removal of the valuable posterior ossicles (malleus) all between the annulus tympanicus and the facial ridge, the leveling of the edges of the bone wound and the longitudinal section of the membranous canal along the posterior inferior wall, the closure of the posterior wound with inversion of minor drain, followed by early removal. That is to say, his modified blood clot dressing. Convalescence in these cases is generally shortened, the hearing is often restored to normal, or above the

degree existing prior to the suppurative of the middle ear.

These mastoid operations not only comply with the command of the Nil Nocere but in view of the results obtainable in regard to restoration of function may be classed under the heading of reconstructive surgery of the ear.

Blackwell Exposure and Curettement of the Attic, Combined with Modified Blood Clot as Factors in Promoting Rapid Mastoid Healing. *J. Am. Otol. Soc.* 9, 3, May.
By Surg. Gynec. & Obst.

The paper is based upon sixty-nine operations for mastoiditis, in all but three of which a modified form of blood clot healing was used, in an attempt to reduce the time of healing, diminish the pain of dressing and improve the appearance of the scar subsequent to mastoidectomy. In thirty-eight operations, in addition to a thorough mastoidectomy the attic of the middle ear was exposed and curetted without disturbing the ossicular chain. This was performed by taking down the posterior bony canal wall to within one quarter of an inch of the epitympanic ring of bone and with narrow curette removing the external attic wall working from within outward. In each instance the attic, all of the middle ear cavity lying above the level of the epitympanic ring of bone and the horizontal facial canal as found filled with infected tissue, which was removed, revealing the body and short process of the incus and head of the malleus lying in their normal positions. The author believes that the proximity to the clot of this infected tissue is sufficient to cause frequent infection of it and subsequent failure.

In all of the cases but three, more or less iodoform gauze was placed in the mastoid wound at the conclusion of the operation. The amount of blood used to fill the wound varied considerably with each case. Forty-two were adults, seventeen were children and ten babies. At the end of the fourth week after the operation forty-four cases were entirely healed. At the end of the sixth week all excepting three were healed. Nineteen of the cases are complicated by permanent deafness. Twenty-three had subperiosteal inflammation or abscess. The drum or mucus as exposed thirty-two cases. None died. The hearing was not improved in those in which the attic was curetted. The external auditory canal was always preserved snugly to the conclusion of the operation, in order to prevent its collapse. Nine had chronic discharge from the ear.

The author believes, in number of selected cases of chronic discharge from the ear, with good hearing presenting evidence of true attic suppuration only that the operation combined with without blood clot, or with or without plastic mental flap, will preserve the hearing and remove from the ear potential possibilities of menace. Also the duration of healing after mastoidectomy is very materially shortened, the dressings are less painful,

and the subsequent scar presents a much better appearance.

Randall A Skull Trephined for Mastoid Caries and Lateral Sinus Thrombosis. *J. Am. Otol. Soc.* 9, 3, May.
By Surg. Gynec. & Obst.

The specimen was given to the author shortly before the death of D. Ashhurst, dozen years ago, with the statement that the patient had been operated on at the Episcopal Hospital thirty years before. The incomplete records of that date at the hospital fail to furnish substantiation of detail. The right mastoid region presents two rounded conical openings, the anterior entering the carious cavity within the mastoid the posterior communicating with the knee of the sigmoid sulcus. Both are eroded like the whole mastoid superficies. Thirty millimeters farther back, forty-five millimeters behind the meatus and just above Reid base-line, button has been removed with half-inch trephine. The inner aspect shows erosion of the lateral sulcus from near the torcular forward to the knee where the anterior wall is gone and the sulcus merges into the carious mastoid interior. Two small openings enter the middle cerebral fossa.

The specimen tells an unmistakable story of mastoid caries opening back to form perilous abscess, inadequately drained by two drill-openings perfectly placed but insufficient in size. Later for what symptom we cannot learn formal trephining was done to deal with the lateral sinus but the sharp-cut opening tells that the patient did not long survive. It is very regrettable that the clinical details cannot be furnished but this much deserves record since it dates from some ten years before a common incision on the subject by Zaufel, H. Riley or Lane.

Shambaugh When to Operate on the Labyrinth in Labyrinth Infection Secondary to Purulent Otitis Media. *J. Am. Otol. Soc.* 9, 3, May.
By Surg. Gynec. & Obst.

Shambaugh points out that the object of operating upon the labyrinth in labyrinth infection from middle ear disease is to prevent the development of an intracranial complication or to relieve an intracranial complication after it has once developed. It is only in the severe cases of labyrinthitis, that is, in cases where there is diffuse purulent invasion of the labyrinth, that the danger of an intracranial complication is sufficient to justify a labyrinth operation. Clinically it is not always possible to make a diagnosis between diffuse non-purulent (serous) labyrinthitis, with total suppression of labyrinth function, and a diffuse purulent labyrinthitis. Furthermore the danger from diffuse purulent labyrinthitis is not always the same. Some cases are much more likely to proceed to an intracranial complication than others. It is not always possible to make distinction between the cases of labyrinth empyema, where the danger of an intracranial complication is sufficient to constitute an

Indication for the labyrinth operation, and the cases where this operation need not be done.

I general, one may conclude that labyrinth operation is not called for in case of labyrinthitis where the function of the internal ear has not been completely destroyed unless there intervene symptoms indicating intracranial complication. The same procedure can be applied to all cases with complete destruction of the function of the internal ear, whether they occur secondary to an acute otitis media in connection with acute exacerbation of chronic otitis media, provided no clearly recognized indications exist for mastoid operation. A labyrinthitis which develops after mastoid operation even here it results complete suppression of function, may be treated in this way conservatively, unless symptoms develop indicating a intra-cranial extension.

On the other hand the cases of labyrinthitis where labyrinth operation seems to be clearly called for include:

First cases of labyrinth suppuration, her clinical symptoms not suggesting beginning intracranial complication, such as altered cerebro-spinal fluid, severe unilateral headache, etc.

Second, cases where the labyrinth empyema develops as part of violent acute panotitis where the indications for mastoid operation exist.

Third, cases where the labyrinth suppuration develops as sequel to chronic purulent otitis media where all recognized indications for radical mastoid operation exist.

Fourth, cases where the labyrinth suppuration is complicated by erosion of the labyrinth capsule by fistula formation into the labyrinth by facial paralysis by sequestration of part the hole of the labyrinth capsule.

Day, Indications For and Result of Operative Treatment of Otitic Meningitis. Surg. Gyner & Ober, 9, 25, 360. By Surg. Gyner & Ober.

The author has treated 57 cases of meningitis 53 of otitic origin, nasal and secondary to pneumonia. All are diagnosed as diffuse suppurative meningitis and 48 confirmed by autopsy. Four cases recovered, 3 operated and one with vaccine therapy. Meningitis followed by acute purulent otitis and its acute exacerbation twice as frequently as the acute form. The complicating acute type was more than the explosive form running rapidly fatal course. Meningitis following the bronchopneumonia more protracted course.

The treatment of the cases varied. The mastoid operation, simple or radical, as done in 48 cases. In 33 the operation was supplemented by other procedures. Cases by dorsal drainage 8, by simple section of dura for drainage 4, by uterine suction 3, by drainage of cerebra magna 1, by drainage of lateral ventricle 1, by lavage 1, entrance 4, by

transpalatal section of urotropin and of cyanide of mercury.

It is impossible to establish definitely the indications for operation. The operation is not one for cure of diffuse meningitis, but to prevent suspected localization from becoming diffuse. Indications of beginning invasion of the meninges are vague. Steady increase in blood pressure and edema of papilla, when present, is a distinct help in diagnosis. Lumbar puncture is the most reliable information as to the condition of the meninges. Presence of pus cells or pyogenic organisms in the fluid is usually considered diagnostic. A markedly increased number of polymorphous leucocytes with the presence of pyogenic organisms indicates hopeless condition. As no employed lumbar puncture seldom gives warning of threatened invasion. The virulence and not the individuality of the organism determines the course of the disease and the clinical condition of the patient offers no contra-indication to operative procedure.

The treatment of suppurative meningitis by drugs per os is absolutely useless. There remains, then, local antiseptic vaccine therapy and surgical procedure.

Conclusions. Serum and vaccines are disappointing. Drugs introduced into canal, powerful enough to overcome infection are harmful to other organs. Dural drainage is effective to limited extent when used in circumstances favorable to good result. Drainage of cerebra magna is not up to expectations but it represents distinct step in advance toward successful therapy. The mortality has not been changed by surgery and the successful treatment of otitic meningitis is still to be discovered. Our only hope at present is early diagnosis.

Dench, Report of Three Cases of Otitic Meningitis Treated by Drainage of the Cerebra Magna. T. Am. Otol. Soc. 9, 3, 12. By Surg. Gyner & Ober.

The author reports three cases of meningitis of otitic origin. In the first case (tuberculous meningitis) could not be excluded clinically although the pathological findings on the examination of the cerebro-spinal fluid, Von Pirquet test and animal inoculation were negative. In the other cases the meningitis as unquestionably of otitic origin. In all three cases the cerebra magna, as easily drained by an incision in the median line below the external occipital protuberance, the removal of bone being continued into the foramen magnum. All of the cases terminated fatally. In the opinion of the author life may have been somewhat prolonged by the operation. It did not seem however that the procedure had been any more efficacious than the ordinary cerebellar decompression or decompression in the temporal region.

SURGERY OF THE NOSE THROAT AND MOUTH

Sluder: Further Observations on Some Anatomical and Clinical Relations of the Sphenoidal Sinus to the Cavernous Sinus and the Third, Fourth, Fifth Sixth, and Vidian Nerves. *T Am Laryngol Ass* 9 2 May

By Surg. Gynec. & Obst.

Sluder has previously expressed his belief that many cases of migraine are either sphenoidal empyema or nerve involvement by the extension of the inflammation. Its course through the thin wall separating the sphenoid sinus from the adjacent nerve trunks. The results obtained during the past year strengthen this belief. From anatomical examination of specimens studied by cross section he found that the third, fourth, fifth, sixth, and Vidian frequently lie in close association with the sphenoid sinus, and his findings, except for the Vidian, were corroborated by Ladislav Onodi. He found the sphenoid sinus separated from the clivus of Blumenbach by transparent bone in some specimens demonstrating the association of the sixth. The early lateral spread of the sinus brings it in close proximity to the second division of the fifth at as early an age as two and one-half years. As early as the sixth year the Vidian canal is approached.

The underlying pathological process Sluder believes, is an hyperplastic sphenoiditis. The second division of the fifth and Vidian are most frequently involved.

The medicines which have so far proved of the greatest benefit are one per cent carbolic acid in oil, two-tenths per cent oil of wintergreen, and aqueous solution of sodium salicylate two fifths per cent.

EARLE B. FOWLER

Randall: A Skull with Malformation of the Temporal Bone and Distortion and Absorption of the Basilar Region as if by Pressure of Naso-Pharyngeal Growth. *T Am Laryngol Ass*, 9 3 May

By Surg. Gynec. & Obst.

The massive edentulous skull seems that of a man of 70 years and is fairly normal on the right but the left mastoid is represented by irregular osteophytic nodules back of each rounded opening cm. in diameter enters the lateral sulcus and the cerebellar fossa. Its smooth beveled edges mark it as of long standing, probably congenital. The basilar process of occipital and sphenoid is thinned by absorption, especially of its under surface the back wall of the sphenoid sinus, the pterygoid, the palate, and even the upper alveolus are pressed forward on the right as is the zygoma and malar but the nasal fossa are fairly symmetrical. The floors of carotid and auditory canals are gone the left, possibly broken off but probably absorbed as is the bone about

the greatly enlarged lacerated foramen. Through this opening the tumor would seem to have penetrated the brain-case and caused absorption and distorted even the foramen magnum by forcing the medulla over to the right. As there is no evidence of infiltration of the bone, the growth would seem to have been non-malignant, and the displacement of the maxilla and other changes suggest action in early life—it was probably an adolescent fibroma of the vault.

Reik: The Value of Naso-Pharyngeal Surgery in the Treatment of Chronic Exudative Otitis Media. *T Am Otol Soc*, 9 3 May

By Surg. Gynec. & Obst.

A report of the careful observation of thirty-four cases of chronic exudative otitis media, seen in private practice without complications but associated with and believed to be dependent upon or still excited by some abnormality in the nose, pharynx or naso-pharynx. The purpose of the study was an answer to these two questions: What effect upon the ear can one logically expect from naso-pharyngeal surgery in such cases? And, why are so many hearers skeptical of obtaining satisfactory results under similar circumstances?

The patients varied in age from 4 to 39 years and the deafness had been noted as progressing in periods ranging from six months to fifteen years. The abnormalities referred to consisted of hypertrophied turbinates, deflected septa, hypertrophied or merged diseased tonsils, or adenoids. Careful hearing tests were made before and after operation, main reliance for the purpose of comparison being placed upon a test with self-controlled tuning fork. The operations embraced turbidectomy, tonsillectomy, adenoidectomy and submucous resection. Analysis of the effect upon the ears, other treatment being employed, shows immediate improvement in hearing in thirty-two, no change in two and in no instance was the hearing rendered more defective. These tests were made within two weeks after the operation. It is also shown by tests made at later periods, varying from six months to five years from the date of operation that this improvement was maintained in thirty cases and fell back to the former condition in two in other words, thirty of the thirty-four were permanently benefited. The degree of improvement of hearing is not, however, considered by the author as sufficient to justify promising such patients that any of the lost hearing can be reclaimed; he considers it the most important thing to be able to say that the progress of the disease can be checked and further loss of hearing arrested.

His answer to the first question is, that simple exudative (catarrhal) otitis media, which is due to abnormal diseased conditions in the nose, throat, can be arrested in its progress by removal of these conditions; that in such cases the progressive deafness can be stopped and further loss of hearing prevented; that in some few cases the hearing power may be materially improved. Referring to the reason why some observers have been skeptical of obtaining such good results the author states his belief that generally these disappointments have followed incomplete or improperly performed surgical procedures and he explains the necessity for special skill and care in naso-pharyngeal operations done for the otologist. Success of the kind outlined above depends upon the proper performance of naso-pharyngeal operations so that there shall be complete and thorough eradication of the abnormality without injury to neighboring normal structures.

Shambaugh: The Facial Tonsils as Focus for Systemic Infection. *T Am Laryngol Ass* 9, 3, May. By Surg. Gynec. & Obst.

The author has had rather extensive experience with cases of this sort. He believes that the facial tonsils are much more frequently a focus for systemic infection such as acute or chronic articular rheumatism, nephritis, acute endocarditis, and chronic cardiovascular degenerations than is usually suspected. This relation is more thoroughly appreciated by the leading internists than by the specialists.

The author calls attention to the conditions about the facial tonsil that he has observed in cases where these structures are clearly shown to be the focus for systemic infection. A small tonsil is as frequently the seat of such foci as is the hypertrophied tonsil. Quite frequently no expression by pressure upon the base of the tonsil creamy exudate which is largely pus. Very often the tonsils contain foci of pus causing systemic infection where the patient is not aware that he has ever had inflammation of the tonsil. Not infrequently too, the author has removed tonsils which were suspected as harboring foci causing systemic infection here there was no history of attacks of tonsillitis and where nothing in the appearance of the tonsil suggested tonsil trouble, and yet on their removal he has found in the depths of the tonsil pockets foci of pus which contained virulent streptococci. Observations of this kind have led him to be less dogmatic in asserting from the inspection of the tonsil, that the structure may not contain foci of infection. In any case where a patient suffers from chronic focal infection and where competent internists are unable to discover any other probable source the facial tonsils should be suspected.

As regards the treatment of tonsils suspected of causing systemic infection, the author advises the complete enucleation. In children this is done under ether. In adults it is done preferably under local anesthetic application of 1 per cent cocaine solution.

dresalin, rubbed over the tonsil and the submucous injection of 3 per cent novocaine solution. The tonsil is dissected free by the use of a scalpel with rounded tip. The tonsil is then removed with snare. In adults high blood pressure or slow coagulation time are contra-indications. In these cases a slitting of the tonsillar crypts is preferred.

Clark: The Results in Series of Cases of Tonsillectomy Three to Four Years After Operation. *T Am Laryngol Ass* 9, 3, May. By Surg. Gynec. & Obst.

These cases were, with three exceptions, under fifteen years old at the time of operation. The author requests to report, 143 cases responded in person. Only one case had post-operative hemorrhage deserving mention. Among the reasons given for tonsillectomy were sore throat, tonsillitis, cervical dentitis, chorea, rheumatism. The ailment for which the tonsils were removed was relieved in all but very few cases. All but twenty-four cases showed improvement in the general condition after operation. Fourteen of this twenty-four were in good general condition at the time of the operation. The lack of improvement in all but three of the remainder was due to conditions not related to the tonsils.

Since the operation, one patient has had nasal diphtheria, four have had measles, two whooping cough, one neuritis, chorea, one bronchitis four pneumonia (one doubtful), five abscesses of the ear and twenty-two sore throat. There has been no change in the voice or speech since the operation in six cases. Improvement in twenty-two and condition said to be worse in two. Enlarged cervical glands were absent in ninety-eight cases. Tonsil tissue as absent in eighty-two cases, still present

both sides thirty-one, and on one side only in twenty-eight cases. Cases in which there is no doubt of the presence of lymphoid tissue in the tonsils are counted in the affirmative. Some of these were no doubt due to hypertrophy of an extracapsular lymphoid focus. The soft palate was symmetrical in 30 cases, asymmetrical in eighteen. In four cases the uvula had been partially or wholly excised. The facial pillars were normal in ninety-six cases, not normal in forty-one. The pillars were considered not normal when one (or more) was absent or when anterior and posterior pillars were fused, or when one or more of them showed contralateral contraction. The tonsil fossae were present on both sides in 143 cases (sixteen of these shallow) and one both absent in twenty-six. Carious teeth were noted in twenty-one cases. Three cases of enuresis were not relieved. More than half the cases who said they still had attacks of sore throat showed no tonsil tissue whatever and in many of those which showed tonsil remains it was quite obvious that the sore throat was not due to the tonsils. Of the thirty-three cases in which tonsillitis was the reason for operation, only one (an incomplete operation) was not cured. Only sixteen pa-

tients have had a y definit ill esa slare the opera-
tion. The speech was pparently unaffected by
asymmetry of the soft palat or pillars o by loss of
the vula. In the tw cases in which the speech
was said to be not so good the palate and fauces
ere perfectly normal. Forty-three cases showed
one or more enlarged cervical glands but in not one
f these could any symptoms be attributed t their
presence. In most f the cases in which there were
glands there was t mall tissue on the same sid. On
the other hand, i twenty-six cases in which there
were tonsil remains there were no enlarged cervical
glands. Carious teeth seemed to bear causative
relatio t the glands in some cases

O'Malley Enucleation of Tonsils and Removal
of Adenoids under Gas Anesthesia. *Brs. 17*
J. 9 3 4, 600. By Surg. Gynec. & Obst.

The article describes in detail the method of tonsil
enucleation as devised by Shuler with such modifica-
tions as the author considers desirable. The use of
gas is advocated where everything is convenient
and trained assistants are at hand. In addition to
the usual preparation for general anesthetic the
following mixture is given one day before the opera-
tio nd six days follow-
ing

Sodii salicyl	
Potass. bicarb	
Potass. chlor	ss gr
Elm. aromat (B P C)	m. xx.
Aq chloroform	℥. ss. jss.

Dose t drs. bims. This is given for its local
and general theptic action and t counteract any
septic absorptio from the raw surfaces.

The table is placed parallel t window and the
operat stands bet een, using daylight when possi-
ble. The patient is placed on his back with head
turned tow rd the operator for the tonsillectomy
and on his right sid for adenoid my. The author
uses Ballenger Shuler tonsillectomy with dull
edged blad and the slot intended for the reception
of the blade filled with lead so that the blad cuts
pauet this. The instrument is inserted and the
ring threaded under the lower pole of the t mall,
the handle carried t the opposite angle f the mouth
and pressure exerted so that the tonsil comes to be
over the opening and bulges against the anterior
pillar. The index finger of the left hand, pressing
against the outer edge of the pillar inverts the t mall
through the ring and the blade is then closed down.

The adenoids are removed with Gottstein's
curette with spring cage t retain the removed
tissue. The removal of the tonsils requires about
4 to 5 seconds for each and the removal of the ade-
noids bout fifteen.

EARLE B. FOWLER

Denician Adhesions of Uvula and Soft Palat to
Posterior Pharyngeal Wall in Girl aged 12.
Proc. Roy. Soc. Med. 9 1, vi, 81

By Surg. Gynec. & Obst.

The patient was sent to the hospital because of
imperfect nasal respiration. There was no history

of throat affection and there was no family history
of note. A bent probe was hooked around the
uvula which became detached and shrank to a third
its former length. Suggestions as to the probable
cause and the most suitable treatment were requested.

McKENNIE said that he had operated twice on
similar cases without success. The best result that
he had seen was on a case in which Grant removed
part of the bony palate and after the operation
brought the uvula forward with a suture and attached
the suture to one of the incisor teeth. Another
method was to put in long rubber tubes, one in each
nostril, bring them out of the mouth and attach
them outside.

DESAINTI referred to case in which Spencer trans-
fixed the rolled-up soft parts with a silver wire and
passed the ends of this through the mucro peristernum
of the hard palate. Contraction occurred i this
case later but no further adhesions. H had
a case ten years go in which he used the same pro-
cedure and there had been no contraction.

ROBINSON mentioned a case he had shown in which
lead plate with silk thread at each corner had been
bent and passed around the detached soft palate
with two f the threads through the nose. The
plate was kept in position for a fortnight.

ALLANAN had used both rubber tubes and lead
ribbons with moderate success.

POWELL said that he had obtained good results
with tubing but that it should be retained for a long
time t prevent readhesion.

HOWELL spoke f a case in a young woman in which
he had grafted over the exposed surface part of a
bird prepure from which the ski had been re-
moved. The result had been very satisfactory after
period of eight years.

EARLE B. FOWLER

Grove Certain D gers of the Adenoid Opera-
tion. *Brit. J. Surg. 17 pt 2 11 p. 9 3, 21*

By Surg. Gynec. & Obst.

Grove controverts the generally accepted belief
that the adenoid operation is a simple and abso-
lately harmless proced re and in this paper he
discusses the most frequent and dangerous compli-
cations of this operation. H places them in two
general groups: first, the post-operative bleeding;
second post-operative infections. His considera-
tion of the complications in group one is dismissed
with the statement that post-operative bleeding
can be of a very severe nat re and he quotes from
the literature in two instances, recording eleven
cases of fatal hemorrhage after the adenoid opera-
tion.

The second group, the infectious complications
of the adenoid operation, he considers in great
detail, and takes up in his discussion the following
post-operative complications: Fever, general sepsis,
endocarditis, acute rheumatic fever, the acute infec-
tious diseases of childhood, tonsillitis, adenitis,
toricollis, lung infections and meningitis, and points
out their causal connection with the bacterial
content of the nose and naso-pharynx. The

author reports 10 of his own cases in which, following the adenoid operation there was, a few days later, infection of the accessory sinuses of the nose.

In conclusion he warns against operating when there is any infectious process present in the nose, naso-pharynx or ear, and also during local epidemics of the acute infectious diseases of childhood, especially if the patient had come into any sort of contact with children ill of these diseases. And finally he believes that this operation should be done in hospital, and the cases kept under observation for a considerable period of time.

GROUPE E. BONS

Burgues. Direct Endoscopic Examination of the Larynx, Trachea, and Bronchi: Technique, Indications and Results. (*L'endoscopie directe du larynx, de la trachée et des bronches; technique, indications, résultats.*) Thèse de Doct. Montpellier 1913. By Journal de Chirurgie.

This work states briefly the exact condition of this question and gives some original practical advice from Mouret who edited the paper.

After describing the Killian endoscope of Brunings (bronchoscope capable of lengthening and external lighting) Burgues describes the technique of superior bronchoscopy, anaesthetization of the larynx, trachea and bronchi, with cocaine, the position of the patient and the course of the examination.

In discussing the position of the patient he insists on the one recommended by Mouret.

Laryngologists who practice superior bronchoscopy are preoccupied with obtaining obliteration of the buccopharyngeal angle by forcibly extending the head. Attention is paid to the position of the body or basin as long as the head does not slide forward. Mouret proposes to put the patient in position in which the trunk and head will be bent forward. The position of the head is that which the passage of the tube forces it to take. Mouret has the patient sit astride chair, seize the back tightly with the anterior surface of the neck almost touching the back of the chair.

The advantages of this position are as great in oesophagoscopy as in tracheoscopy.

Burgues states that the chief indications for direct endoscopy of the trachea and bronchi are the presence of foreign particles.

A table is given of eighty-seven cases of foreign bodies in which superior bronchoscopy was performed. Three of these cases are Mouret's. The first was cherry stone which had lodged far down in the first branch of the left bronchus. Extraction was not possible as the foreign body could not be reached with the tube. In the second case coffee grain was extracted from the right bronchus of child five years old. In the third large headed tack, which had lodged in the left bronchus of child of eleven years, was removed. The last two had an uneventful recovery but the first died of broncho-pneumonia.

A complete alphabetical index concludes this work,



FIG. (BURGUES)

which is the most recent and the most complete in the French language. E. J. VERA

Sanderson. Tuberculosis of the Larynx. *Brit. M. J.* 1913, 703. B. Surg. Gynec. & Obst.

McKenzie classifies tuberculous growths in the region of the larynx into three groups: (1) Granular hyperplasia in connection with tuberculous ulcers, (2) papillomatous excrescences, vegetations and tumors, probably papillomatous tissue infected with tubercle bacilli and sometimes the only visible signs of tuberculous infection, (3) true tuberculous tumors—extremely rare—composed of closely aggregated miliary tuberculous nodules, and occurring independently of infiltration and ulceration of the mucous membrane.

The first case reported is a male 60 years old who complained of choking on lying down, and difficulty in swallowing lasting for a period of three years. There was no other evidence of tuberculosis. The laryngoscope revealed papillary growths throughout the broad base and regular surface extending from the posterior surface of the right arytenoid cartilage down and into the hypopharynx toward the esophagus. There was no ulceration and no enlarged glands were felt in the neck. Microscopical section showed considerable number of giant cells, epithelioid cells and lymphocytes. A diagnosis of tuberculosis was made. The growth was removed with cutting forceps and galvano-cautery and the surface rubbed with lactic acid. Symptoms were

relieved but returned in five months. A resection of the forebrain caused coughing-spasms and had to be given up. The patient died of exhaustion seven months later.

A tuberculous is generally covered with smooth intact mucous membrane of a pale gray to a dark red color. The disease is usually found between the ages of twenty and forty-five and is also growth. It is more frequent in males and is generally associated with a primary focus in the lungs. The results of treatment in a few cases of true tuberculous intralaryngeal tumor in the absence of any demonstrable lung changes have been excellent. This was due no doubt to the fact that operative interference and topical applications could be followed by more or less complete rest of the parts. The author then cites cases in which recovery was complete after ten months of treatment and rest.

Ryall. Cancer of the Tongue. *Ann. N. Y. Acad. Surg.* 1907.

Syphilitic lesions of the tongue lower the existing power of the organ rendering it vulnerable to infection of all kinds. The primary sore is a small found that mucous plaques of the secondary stage are by no means uncommon, but it is especially from the later or tertiary lesions that dangerous sequelae ensue. These tertiary lesions occur not only in cases of neglected or insufficient treatment but also where the most rigid mercurial treatment has been carried out. All cases of syphilis by no means exhibit tongue lesions and even appear to be peculiarly exempt. Correlated with the high percentage of syphilis in the histories, equally large number are found to be smokers and/or heavy smokers. The author is convinced that even the use of tobacco discontinued from the onset of symptoms of syphilis until when, after thorough treatment the Wassermann reaction is still remains negative, tertiary manifestations in the tongue could almost cease to exist, and cancer of the tongue would be rare seen. These patients are accustomed to having sore tongues so when the process becomes cancerous the seriousness of it is not appreciated. The lymphatics are early infected and as there is free anastomosis of the lymph channels, though the growth be only on one end of the tongue, both sets of glands are usually involved. The diagnosis should be definitely established by excision and examination. If syphilitic treatment should not be depended upon.

The treatment is separated into three headings: (1) preventive, (2) radical and (3) palliative. Under preventive treatment comes abstinence from tobacco for syphilis. The treatment of all syphilitic lesions of the tongue should be carefully checked by Wassermann tests. The author considers the radical excision of the tongue necessary. This is done in three stages: first, the removal of the tongue and the dissection of glands from one side of the neck; second, the removal of the glands from the

other side. Under palliative treatment the author strongly advises the removal of the tongue even in advanced cases. He tried ligation of the linguals and external carotids in the hope of starving the growth but this was not satisfactory. He also tried the ligation of the vessels with paraffin in one case; the result was good but cure did not follow. Where the lesion is very minute a very wide removal might suffice but the larger operation even then would be best. By an incision carried from behind the angle of the jaw along the anterior border of the sternomastoid to opposite the sterno-clavicular articulation and another from beneath the tip of the chin to meet this at right angles, the anterior triangle is first cleared of the fascia, fat and lymphatic glands belonging to the submental, submaxillary inferior parotid and carotid groups, taking care to prevent tearing of these as cancer implantation followed by recurrent nodules, or more frequently widespread and rapid malignant induration of the whole side of the neck might result. Drainage tubes are inserted before closing this wound to remove blood-stained exudation or secretion from any of the salivary glands, or in case communication is accidentally made with the oral cavity. Thereafter the mucous membrane of the floor of the mouth and the frenum is divided. Drawing the tongue to be pulled forward and the lingual arteries ligatured. The tongue is divided transversely as far back as possible and the mucous membrane of the floor of the mouth cut vertically at the tip.

Smyth. Misplaced Mandibular Canine. *Proc. Roy. Soc. Med.*

By Henry Gwynn & Obit.

The patient, a boy of 6, had tender swelling beneath the lip. A few days later the tooth (a tooth made its appearance being directed almost exactly downward. The tooth, except for some hypoplasia of the enamel was normal.

On examination of the mouth showed that both the right lateral incisor and cuspid were absent from their normal positions, the mandible. The history of the case brought out the fact that the child, at about three and one-half years, received a blow upon the chin and that subsequently a piece of dead bone was removed. The author surmises that the presence of the ununited had directed the tooth downward.

H. A. Porter.

Ochsner. Cleft Palate. *New Orleans M. & S. J.* 1911.

By Surg. Ochsner & Obit.

The author here reports that there has been admitted to the New Orleans Charity Hospital, between the years 1900 and 1911, twenty cases of complicated hare-lip and fifty-four cases of hare-lip and cleft palate in children. In adults ranging in years from fourteen to thirty-two years there have been four cases of hare-lip and nine cases of hare-lip and cleft palate. Comparing the number of cases treated in other hospitals, especially by Lane and Mayo, which are greatly in excess of this

report, the author concludes that the dearth of cases treated in Louisiana does not represent the number of resident cases but that most of them do not seek surgical relief, the cause being that on account of the difficulties which the operation presents the surgeons are loath to attempt it.

The author after citing the views of other men and quoting from Jacobson and Steward concludes that the best time for operating is some time before the child begins to talk but drawing no hard and fast rules regarding it. As to the choice of operation, the author advocates as practiced by most men some modification of the Langenbeck operation, and when one side of the cleft projects beyond the other they are brought together with silver wire suture somewhat after the method proposed by Brophy reducing the intermaxillary bone when it projects by resecting a portion of it.

After discussing the Brophy operation the author

gives the basic principles which underlie the operation first, abolition of tension by absolute relaxation of flaps second good blood supply to the flaps third proper coaptation of broad raw surfaces.

The author favors doing the operation in two sittings, the first one comprising only the creation of the muco-periosteal flap then allowing the blood supply to regenerate when the closure can be more certainly effected. He also deprecates the subsequent use of antiseptic and dehydrating agents, also frequent examinations. He also seeks to void bacterial infection (post-operative) by gastric lavage, encouraging vomiting by inducing the child to drink a large amount of ster.

The author believes that closure of the cleft before the child begins to talk does remedy the speech defect, and even though it be done late the defect may be overcome.

H. A. FORR.

BIBLIOGRAPHY OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

NOTE.—The bold face figures in brackets at the right of reference indicate the page of this issue on which an abstract of the article referred to may be found.

Operative Surgery and Technique

- The fixation of subcuticular sutures. WM. PEARSON
Med. Press & Circ. 9 3, civi, 467.
Cauterization by means of cold. BURKNER. Presse
méd. Par. 9 3, xii, N. 29.
Advice to patients on leaving the hospital after surgical
operations. LEONARD FREEDMAN. J. Am. M. Ass. 9 3,
lx, 33.
After-treatment of surgical operations. C. S. HORMAN.
W. Va. M. J. 9 3, vi, 35.
Systematic exercises in post-operative treatment.
E. H. POOL. J. Am. M. Ass. 9 3, lx, 30.
A cellulose-paraffin method for embedding and handling
tissue. H. M. FRANKSON. Med. Rec. 9 3, lxxvii,
6.
Modern treatment of wounds and first aid. W. LUK-
WART. Zentralbl. f. Chirurgie 9 3, 1.

Aseptic and Antiseptic Surgery

- Pre-operative preparation of the skin. C. G. SARTI.
Med. Sentinel, 9 3, xii, 864.
Disinfection of the hands. SORREL. Arch. prov. de
chir. Par. 9 3, xii, N. 3.
Disinfection of the hands in surgery. G. APPELO.
Chir. chir. 9 3, xii, 33.
Disinfection of the hands by Boies soap and paste after
Lectman. KOTCHER. Berl. klin. Wchnsch., 9 3, 1,
600.
The employment of bolus alba for disinfection of the
hand. GUTWIK. Zentralbl. f. Chir. 9 3, xl, No. 3.
The benzoin toilet. ROUX. Cor. Bl. f. schweis. Arzt,
9 3, xii, No. 6.
Iodine in surgery. MINAR. Union méd. du Canada,
Montréal, 9 3, xii, No. 3.
The extra-peritoneal use of tincture of iodine as an
antiseptic. W. O. ROBERTS. Louisville Month. J. 9 3,
xii, 113.
Disinfection of the skin with iodine tincture. C.
GASTANO. Gazz. d. op. d. clin., Milano, 9 3, xii, 57.

Anesthetics

- Modern uses of anesthetics. W. T. DYER. Albany M.
Ass. 9 3, xxiv, 308.
Vapor anesthetics and its advantages. H. C. FALK.
Med. Rec., 9 3, lxxvii, 60.
Preparation of patients for general anesthesia; selection
of the anesthetic and its application. C. E. HUNT. In-
ternat. J. Surg. 9 3, xvi, 14.
The danger and prevention of severe cardiac strain
during anesthesia. W. D. GATON, D. GATON and F. C.
31. J. Am. M. Ass. 9 3, lx, 273. [123]

The choice of an anesthetic in operations for acute
inflammatory conditions of the abdomen. SPRENGEL.
Deutscher chir. Kong., 1913. [124]

General anesthesia with lessened circulation or ex-
clusion of the four extremities in general anesthesia. DATA.
Journ. La clin. med. 9 3, xii, 41.

Technique in general anesthesia for intracranial opera-
tions. H. B. GARDNER. Proc. Roy. Soc. Med., 9 3,
vi, 5.

Intratracheal intubation, principles and uses. J. J.
FARHAM. J. Mich. St. M. Soc., 9 3, xii, 63.

Intratracheal ether anesthesia. S. ROBINSON. Clifton
M. Bull., 9 3, 1, 3.

Intravenous ether anesthesia and report of cases.
L. L. SANDERSON. New Orleans M. & S. J. 9 3, lxxv, 79.

Ethyl chloride anesthesia. C. F. HANFIELD. Clin. J.
9 3, xl, 42.

Adrenalin in chloroform anesthesia. H. T. DEFRIT.
Brit. M. J. 9 3, 1, 879.

Nitrous oxide and oxygen anesthesia. J. R. BOOZER.
K. M. J. 9 3, xl, 300.

Test anesthesia in determining tolerance for scopol-
amine-pastipon during subsequent operation. H. HÖLDER.
Zentralbl. f. Gynäk., 19 3, xxi, 380.

Scopolamine-morphine-atropine as an adjunct in inhala-
tion anesthesia. A. F. MONROE. Proc. Roy. Soc. Med.
9 3, vi, 62.

Scopolamine-morphine-atropine as general anesthetic.
L. E. C. NORMAN. Proc. Roy. Soc. Med. 9 3, vi, 57.

Local anesthesia. HELLM. Klin. therap. Wchnsch.
9 3, xii, N. 9.

Experimental investigations on paravertebral injection
of novocaine. S. MINOR. Deutsche Ztschr. f. Chir.
9 3, civi, 1.

The history of spinal anesthesia. G. GILLMORN. Med.
Fortnightly 9 3, xii, 5.

Spinal anesthesia: development and present status of the
method, with brief summary of personal experience in
205 cases. WM. S. BADA. Stock. Med. Press & Circ.,
9 3, civi, 334. [124]

Local anesthetics and anesthesia of nerve trunks. A. W.
MORLEY. Beitr. z. klin. Chir., 19 3, lxxvii, 530.

Paralysis of the phrenic nerve in anesthesia of the
pleura. R. KILBINGER. Zentralbl. f. Chir. 9 3, xl, 500.

Paralysis of the phrenic nerve in local anesthesia of the
brachial plexus. A. E. STERN. Zentralbl. f. Chir. 9 3,
xl, 597.

Anesthesia of the brachial plexus after Kulenkampf's
method. BARTHEL. Deutsche med. Wchnsch. 9 3,
xviii, No. 14.

Anesthesia of the sciatic nerve. P. BARTHEL. Zentralbl.
f. Chir. 9 3, xl, 460.

Anesthesia of the nervi vagi and its physiological
significance. ROTT. Zentralbl. f. Chir. 9 3, xl, 396.

Local anesthesia by means of cataplasts. M. I. VODKO. A. VODKO and B. SVETLY. *Izvestia, Stockholm*, 93 187, 84.

Necrosis of the cheeks and haemorrhages caused by arterial erosion following the employment of novocaine solutions for the purpose of infiltration anesthesia. Von GUZ. *Deutsche med. Wochenschr.* 93 187, No. 6.

Surgical Instruments and Apparatus

Ligature and suture material also an account of the introduction of gloves, gutta-percha and tissue and sutures. W. S. HALLIST. *J. Am. M. Ass.* 93 187, No. 6.

An apparatus for illuminating the field of operation in minor surgery. L. PROCTOR. *Arch. Centr. f. Chir.* 93 187, No. 6.

An improved oblique illuminator. J. L. M. L. W. NORTON. *Med. J. L.* 93 187, No. 6.

Improvement in the speculum. P. Z. H. N. 93 187, No. 6.

A suture holder for subcutaneous suture. M. H. H. N. 93 187, No. 6.

A new handpiece for suture. J. M. H. N. 93 187, No. 6.

An automatic ligature passing forceps. E. P. MALLER. *J. Am. M. Ass.* 93 187, No. 6.

A plant suture. L. G. G. and D. L. L. *Arch. de med. et de pharm. med. Par.* 19 187, No. 4.

A new apparatus for the determination of foreign bodies. M. R. C. VON. *Arch. f. physikal. Med. u. med. Techn.* 93 187, No. 6.

A holder for compresses for the localization of foreign bodies. D. H. L. *Bull. med. de l'Université Alger* 19 187, No. 5.

A holder for compresses adapted for use in abdominal operations. K. H. L. *Zentralbl. f. Chir.* 93 187, No. 6.

An apparatus for craniotomized patients. B. H. L. *J. d'anal., Par.* 19 187, No. 4.

A new instrument for loosening hard dentures, especially plaster of Paris cast. B. H. L. *Deutsche med. Wochenschr.* 93 187, No. 6.

The use of plaster of Paris as surgical dressing. H. L. G. *N. Y. M. J.* 19 187, No. 6.

A suture table for working in plaster of Paris. B. H. L. *Arch. f. Orthop. Mechanotherapie* 19 187, No. 6.

A new circular bone-saw. F. C. Z. *J. Am. M. Ass.* 93 187, No. 6.

SURGERY OF THE HEAD AND NECK

Head

A new operation for tumors of the lip. M. H. L. 93 187, No. 6.

Excision of sub-maxillary tumors of glandular origin. M. H. L. *Presse med. Par.* 19 187, No. 6.

Excision of the sub-maxillary gland. L. H. L. 93 187, No. 6.

Primary adenocarcinoma of the chin. J. J. Z. *Arch. med. Wochenschr.* 93 187, No. 6.

Frontal sinus and Meniere's disease. L. H. L. 93 187, No. 6.

Enlargement of the inferior maxillary sinus. H. H. L. 93 187, No. 6.

Removal of the inferior maxillary sinus. H. H. L. 93 187, No. 6.

A case of adenocarcinoma of the inferior maxillary sinus. H. H. L. 93 187, No. 6.

Excision of the inferior maxillary sinus. H. H. L. 93 187, No. 6.

Two cases of carcinoma of the lip. A. H. L. 93 187, No. 6.

Temporo-maxillary joint. H. H. L. 93 187, No. 6.

Modern bridge prosthesis. H. H. L. 93 187, No. 6.

Orthognathism of the upper jaw. H. H. L. 93 187, No. 6.

Radiculo-dental cyst development. H. H. L. 93 187, No. 6.

The diagnosis and therapeutic value of suture prosthesis of the maxillary sinus. H. H. L. 93 187, No. 6.

Conservation of the returned. J. L. S. 93 187, No. 6.

A preliminary report on the temporal bone and anastomosis. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

Excision of the temporal bone. H. H. L. 93 187, No. 6.

The diagnosis of cerebral hemorrhage by means of lumbar puncture. OLIVER P. BIGGLOW. Cleveland M J 9 3 xl, 165.

Consecutive displacement of the cerebral hemisphere in the localization and removal of intracerebral tumors and hemorrhages. W H HEDGECOCK. Ann Surg Phila. 9 3 h, 40. [135]

Simplified neurology: brain localization. H. CHICK. N Y Med Council 9 3 xxvi, 29.

Case of large endothelioma of frontal region of the brain. R. L. WATKINS. Am J Insan. Balt 9 3, lxx, No. 4.

Report of case of brain tumor. E. E. MORRISON. J. Am. M. Ass. 9 3, lx, 180.

Bilateral cerebral abscess in olivine the motor area. W. A. DREWIS. St Paul M J 9 3 xv, 55. [136]

Report of cases illustrating certain phases of cerebrospinal surgery. STEWART BROWN. Penn M J 9 3, xli, 43. [136]

The function of the cerebellum. LUDWIG EDERGALL. Deutsche med. Wchnsch. 9 3 xxxix, 633.

Localization in the cortex of the cerebellar hemispheres (functional exploration and theory). ROSE. BLAUS. Deutsche med. Wchnsch. 9 3 xxxix, 637.

A case of tumor of the cerebellum sudden death after lumbar puncture. A. HOGGARDY and O. KATZNER. Ann Soc. méd.-chir. de Lège. 9 3, lx, 58.

T cases of tumor of the postero-cerebellar angle. PALLARES. Lyon méd. 9 3 cxi, No. 6.

Surgical treatment of tumors of the cerebello-posterior angle. ARTHUR GUTTMANN. Internat. Zentralbl. f. Chir. u. Rhin.-Laryngol. 9 3, xi.

Artificial compression of the hypophysis. A. FROM. Pöblich. Rinn. 9 3, xi, No. 4.

Case of disease in the pituitary region. J. B. LA. ROND. Proc. Roy. Soc. Med. 9 3, 58.

The effect of the removal of the hypophysis in the dog. J. E. S. ERT and A. R. ALLEN. Ann Surg Phila. 9 3, h, 485. [136]

New formations of nerv. cells in isolated part of the nervous portion of an hypophysis tumor in acromegaly with diabetes. With discussion of hypophysis tumor. Formed in la. A. M. A. Am J Insan. Balt 9 3, lxx, 633. [137]

Three cases of acromegaly with one autopsy. E. J. McLELLAN. Canad M A J 9 3, ix, 169.

The present state of surgery of the hypophysis. LEON. MANT. Presse méd. Par. 9 3 xxi, N. 30.

Brain, with large pituitary tumor from patient who died from hemorrhage after partial removal of floor of sella turcica. W. HILL. Proc. Roy. Soc. Med. 9 3, h, 5.

Anatomical study of the human pituitary gland. F. POL. ART. Rinn. di studi anat. 9 3, xi, 3.

The histological structure of the pituitary gland. T. K. WALTER. Sitzungsber. Abh. d. naturforsch. Ges. zu Rostock. 9 3.

Neck

Plastic operation for vicious cicatrix of the neck. A. M. SELLIS. Ann. de l'inst. chir. de Brest. 9 3, xi, 65.

A case of hyomandibular fistula. H. KÖTTNER. Deutsche med. Wchnsch. 9 3, xxxix, 459.

A separating brachial cyst. C. A. ROSENBERG and G. V. THOMAS. Brit M J 9 3, 4, 762.

Some cervical cysts of congenital origin. G. H. EDWARDS. Clin J. 9 3, xli, 7.

Tumors of the parotid gland. N. S. J. SCHMIDT. Med. Rundschau. 9 3, lxxii, 34. [137]

Ligation of the common carotid. F. BRÜCKNER. Beitr. z. Klin. Chir. 9 3, lxxii, 494. [138]

The thyroid and its secretion. A. V. COLLIER. St. Paul M J 9 3, xv, 60.

The influence of insufficiency and trophy of the thyroid gland on diseases of the joints. J. HAGEN-TOMX. Chir. arch. Vellamova. 9 3, xlii, 55. [138]

The influence of artificial tracheostomy on the thyroid gland. A. REICH and BLAUER. Beitr. z. klin. Chir. 9 3, lxxii, 475.

Diseases of the thyroid gland. A. MCGILVER. Internat. J. Surg. 9 3, xxvi, 95.

Thyroidism and the chemical significance of its perversions. P. P. MARTIN. J. Indiana St. M. Ass. 9 3, vi, 6.

Tuberculous thyroiditis. WITTELL. Bull. méd. Par. 9 3, xxvi, N. 34.

Follicular tuberculous of the thyroid resembling lymphoma. THIESS. Bd. 5. vr. Lyon chir. 9 3, ix, No. 4.

A case of tertiary syphilis of the thyroid. Nd of the throat. P. P. MARTIN. Progrès méd. Par. 9 3, xli, N. 3.

Widespread goiter. VERABLY. Beitr. z. klin. Chir. 9 3, lxxii, N. 3.

Endemic goiter. W. CRUICKSHANK. Australas. M. Gaz. 9 3, xxxii, 37.

Goiter and its relation to its structural and physiological status. W. C. MACCARTHY. Surg. Gynec. & Obst., 9 3, lx, 406.

Against the later etiology of goiter and cretinism. A. KUTCHERA. München. med. Wchnsch. 9 3, lx, 393. [138]

Exophthalmic goiter. Study of last year. ORK. C. MacLaurin. Australas. M. Gaz. 9 3, xxxii, 55.

New conceptions of the pathogenesis of exophthalmic goiter. PARNOT. J. méd. franc. Par. 9 3, vii, N. 3.

Exophthalmic goiter and case of symmetrical lipomatosis. MUGGI. Bull. méd. de l'Algérie, Alger. 9 3, xxv, No. 6.

Co-existing infection and sarcoma of the thyroid. M. J. PORTER. Ann. Surg. Phila. 9 3, lxx, 50.

Treatment of exophthalmic goiter by chemical means. CANTAGNA. G. et. Bd. PAILLARD. J. méd. franc. Par. 9 3, vii, N. 3.

Radiography and electrotherapy in the affections of the thyroid. MARCO. J. méd. franc. Par. 9 3, vii, N. 3.

Is bilateral resection or unilateral extirpation of the thyroid preferable. A. TETZKE. Berl. klin. Wchnsch. 9 3, l, 99.

Goiter from the surgical standpoint. W. LATHROP. N. Y. St. J. M. 9 3, xxi, 98.

Notes upon the operative surgery of goiter. J. P. MAIRAN. N. Y. St. J. M. 9 3, vii, 95.

The present technique of operations for goiter. ALAVERDIE. Rev. de chir. Par. 9 3, xxxii, N. 4.

Surgical treatment of exophthalmic goiter. DUJARRIE. J. méd. franc. Par. 9 3, vii, N. 3.

Thyroidectomy in cancer of the thyroid. Lx. JENTEL. Arch. méd. chir. de Normandie, Le Havre. 9 3, vr, No. 4.

Fever in Basedow's disease and in acrothia. B. GRASZARDI. Riv. crit. di clin. med., 9 3, xiv, 93.

The clinical forms of Basedow's syndrome. SAKOTOV. J. méd. franc. Par. 9 3, vii, N. 3.

Indians and Basedow's disease. LEBDOUX and TISSER. Progrès méd. Par. 9 3, xli, No. 5.

Cerebellar symptoms in acrothia. G. SÖDERBERG. Nord. med. Ark. Stockholm. 9 3, xlv.

The technique of excision of cervical ribs. A. S. B. BARKLEY. Lancet Lond. 9 3, clxxxv, 961.

The plastic repair of the esophagus. VON FRYL. Zentralbl. f. Chir. 9 3, xl, 545. [142]
(Esophagoplastic surgery) J. O. HALPERN. Chirurgia, St. Petersburg, 9 3, xxix, 14.

Miscellaneous

The technique of thoracic operations. W. W. BARCOCK. Penn. M. J. 9 3, xvi, 53.

The surgical aspects of those diseases of the thorax which are amenable to surgical intervention. S. ROBINSON. Penn. M. J. 9 3, xvi, 57.
Intrathoracic tumors. J. SAULEY and R. O. TORRY. Penn. M. J. 9 3, xvi, 539.
Endoscopic diagnosis and treatment of endobronchial tumors. EHRHART. Berl. Klin. Wochenschr. 9 3, I No. 5.

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

TRANSVERSE INCISIONS IN abdominal surgery. VERHOOFEN. J. méd. de Bruxelles, 9 3, xviii, 5.
A cystic tumor of the abdominal wall. H. WOLLER. Prag. med. Wochenschr. 9 3, xxxvii, 805.
Ligamentous phlegmon of the abdominal wall. W. W. GRANT. J. Am. M. Ass. 9 3, ix, 39. [142]
As an indication into the nature of abdominal rigidity. T. W. WARDEN. Med. Press & Circ. 9 3, cxlvi, 43.
So-called umbilical calculus. ROBERT HARTZBERG. Deutsche med. Wochenschr. 9 3, xxxix, 706.
Large retroperitoneal abscess of uncertain origin drainage by the groin. T. TUNICA THOMAS. Med. Times, 9 3, xl, 99.
Peritoneal adhesions of the infectious toxic group. R. T. MORRIS. Med. Rec. 9 3, lxxxix, 645.
Treatment of peritoneal wounds. B. J. KAMMER. Nederlandse T. d. ch. Verh. en Gynec. 9 3, No. 3, 37.
Diffuse and general peritonitis. A plea for early diagnosis. H. M. HAYES. Illinois M. J. 9 3, xxvi, 285.
The frequency of gonococcal peritonitis in young girls affected with tubo-ovarianitis. TENDON. Gynecologie. Par. 9 3, xlv, N. 3.
Is there biliary peritonitis without perforation of the bile ducts. N. CHASSAC and LÖWEN. Berl. klin. Wochenschr. 9 3, L, N. 14.
Fatal peritonitis due to infection with bacillus coli. A. L. GROVER. J. Am. M. Ass. 9 3, ix, 397.
An extraordinary case of tuberculous peritonitis. E. EDEL. Upsala Lakaref. Forh., 9 3, xxvii, 57.
The operative treatment of tuberculous of the peritoneum. HOFFMANN. Zentralbl. f. Chir. 9 3, xl, 466. [142]
Circumscribed post-typhoid peritonitis opening into the stomach. PELLOUT. Rev. de l. hosp., Montevideo 9 3, vi No.
Generalized post-operative peritonitis. COLLET. J. de méd. de Bordeaux, 9 3, xliii, No. 14.
Free transplantation of the peritoneum. HOFFMANN. Zentralbl. f. Chir. 9 3, xl, No. 4.
Properitoneal hernia. W. C. G. KROCHEN. Ann. J. Obst., N. Y. 9 3, lxxv, 699.
Hernia diaphragmatica or unilateral high dystopia of the diaphragm. REISS. Deutsche med. Wochenschr. 9 3, xxxix, 743.
Subphrenic abscess. G. BACOTTI. Chir. chir., 9 3, xli, 1. [143]
Embryonic diaphragmatic hernia. CONRY and MORRIS. Marseille méd. 9 3, I, No. 7.
A case of hernia diaphragmatica in an adult pathological patient. LAUREN. MARCHAND. Beitr. z. Klin. d. Tuberkul. 9 3, xxvi, 263.

I. hernia in the linea alba. H. MATTHEY. Low. M. J. 9 3, xix, 308.
Lateral ventral hernias. E. RICO CANTOLARI. Gazz. medica di med. chl. 9 3, 90.
Epigastric hernia. LUTHER THIERER. Clinique Bru. 9 3, xxv, 5.
The development of hernia pectinea. HARTZBERG. Deutsche med. Wochenschr. 9 3, xxxix, 744.
Some of the medico-legal aspects of inguinal hernia. T. T. JACKSON. Tex. St. J. Med. 9 3, vi, 330.
Herniology of inguinal hernia. F. FELLER. Cas. Chir. Kl. Pragae, 9 3, li, N. [143]
Rare inguinal hernia. K. TROCHEN. Deutscher chir. Kong. 9 3.
A new plastic aponeurotic method for the cure of direct inguinal hernia. C. B. TITEL. Boll. d. sc. med. Bologna 9 3, lxxvii, 70.
A single transverse incision for use in double inguinal herniotomy. L. S. J. DO. Old Dominion J. 9 3, xvi, 53. [144]
Hernia of the cecum and the appendix. double, direct and oblique sac in the same inguinal hernia. LEROUX and WILLIAMS. J. d. sc. méd. de Lille, 9 3, xxxi, No. 6.
Laceration of the mesentery in strangulated hernia. TOCHNEUX and STELLINGSMA. Progrès méd. Par. 9 3, xli, N. 5.
Three cases of isolated hernia of the appendix. GRISARD. Sud méd. Marseille, 9 3, xlvii, No. 958.
Bilateral hernia. V. L. SCHLAGER. Surg. Gynec. & Obst. 9 3, lii, 359.
Report of the adical operative cure of double obturator hernia. C. VAN ZWALENBOED. Surg. Gynec. & Obst., 9 3, xvi, 472.
Roentgen ray exploration of hernia. BARON and BARBOUR. Beitr. klin. Chir. 9 3, lxxx, No. 1.
Accidents of hernia operation. D. R. KATHMAN. N. Y. St. J. M. 9 3, xli, 300.
The treatment of large hernia. A. E. BARBER. Lancet. Lond. 9 3, cxxxv. [146]
Function of the great omentum. M. STOKER. Med. Rundschau, 9 3, lxxix, 70. [147]
Obstruction of the mesenteric vessels, experimental investigations and clinical observations. NICOLA LEOITTA. Policlin., Roma, 9 3, xxi, 94.
Primary tuberculous of the mesenteric glands from the surgical point of view. BYRON FLOREUS. Allgemeine Svensk Läk. Tid., 9 3, x, 33.
A malignant adenocarcinoma of the mesentery. EDER. Lwow. Zentralbl. f. Path. u. path. Anat. 9 3, xxi, 149.
Cystic lymphangioma of the mesentery. ROVA. Beitr. Klin. Chir. 9 3, lxxvii, No.

Surgical diseases and injuries of the mesentery and the omentum. PETERS and MORGAN. Deutsche Chir. 93, 1, 191, 1906

Co-existence of false and true Meckel's diverticulum. COHEN and MORRISON. Maryland Med. J. 93, 1, 191, 1907

Inflammatory affections which start from acquired diverticula of the sigmoid flexure. CARL. LEBERRECHT. Berl. Klin. Chir., 93, 1, 191, 1907

Intestinal obstruction. JOHNSON. Boston M. & S. J., 93, 1, 191, 1907

The cricoid as a factor in intestinal obstruction, with report of case. C. M. ANDERSON. Lancet-Chir. 93, 1, 191, 1907

Gastro-Intestinal Tract

Röntgenological diagnosis of affections of the stomach. ILLIUS. Berl. Klin. Wochenschr. 93, 1, No. 6

Instantaneous radiography of the stomach. C. W. GIBBS. Pittsburgh M. J., 93, 1, 191, 1907

The results obtained by X-ray exploration in ulcer of the stomach. CARL SCHLÖSSER. Zentralbl. f. Chir. 93, 1, 191, 1907

Vagotomy in ulcer of the stomach. J. J. ALLEN. Am. J. Gastro-Enterol. 93, 1, 191, 1907

Technique and results of gastro-intestinal roentgenology. HILDEBRAND. Ztschr. f. Röntgenstr. u. Radiat. Forsch. Leipzig, 93, 1, 191, 1907

Rupture of the stomach caused by insertion of acids. DELONG and ALLEN. Rev. de Chir. Par. 93, 1, 191, 1907

Acute post-operative dilatation of the stomach and its pathogenesis. ARNOLD. Chir. Chir. M. 93, 1, 191, 1907

A case of dilatation of the stomach. HILDEBRAND. Bull. et Mem. Soc. de Chir. Par. 93, 1, 191, 1907

Tuberculosis of the stomach. DEBILLY. Ztschr. f. Chir. 93, 1, 191, 1907

Lesions of the stomach of the stomach secondary to peritonitis. HILDEBRAND. Chir. Chir. M. 93, 1, 191, 1907

A case of double ulcers of the stomach. KAPPEL. and DAY. Ally and Zentralbl. f. Chir. 93, 1, 191, 1907

Acute obstruction of the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Calculus ulcer involving the stomach. HILDEBRAND. Maryland Med. J. 93, 1, 191, 1907

Diagnosis and treatment of cancer of the stomach from the lymphatics of the stomach. LEBERRECHT, WERNER, ABRAHAM, and GROSSMANN. d. prakt. Med., 93, 1, 191, 1907

Total resection of the stomach. E. UNGER. Zentralbl. f. Chir. 93, 1, 191, 1907

Modifications of Roux's gastro-jejunostomy. LEBERRECHT. Arch. ges. de Chir. Par., 93, 1, 191, 1907

Congruential hypertrophic stenosis of the pylorus with report of three cases. J. B. EAGLESON. Northwest Med., 93, 1, 191, 1907

A case of perforating pyloric ulcer. E. KLOPPER. St. Petersburg Med. Wochenschr., 93, 1, 191, 1907

Indications and technique of resection of the pylorus. BOWEN. Berl. Klin. Chir., 93, 1, 191, 1907

The permanent results obtained with ligation of the pylorus with catgut and fascia. KOTZ. Deutscher Chir. Kongr. 93, 1, 191, 1907

Gastro-jejunostomy and excision of the pylorus in the treatment of gastric ulcer associated with stenosis of the pylorus. BALDO ROSSI. Morgagni, 93, 1, 191, 1907

Duodenal ulcer. KOTZ. Deutscher Chir. Kongr. 93, 1, 191, 1907

Duodenal ulcer. VALLADAO. Gaz. da São Paulo, 93, 1, 191, 1907

Kidney ulcer of the duodenum in the first year of life. WALTER SCHMIDT. Berl. Klin. Wochenschr. 93, 1, 191, 1907

Perforation of duodenal ulcer. JACOBSON. N. Y. St. J. M., 93, 1, 191, 1907

Perforation of duodenal and gastric ulcers. G. D. GREGORY. N. Y. St. J. M., 93, 1, 191, 1907

Papillary ulcers and peri-papillary tumors of the duodenum. P. DEBILLY. Gaz. med. de Paris, 93, 1, 191, 1907

Duodenal stenosis. P. DEBILLY. Gaz. med. de Paris, 93, 1, 191, 1907

Jejunum and gastro-jejunal ulcers. R. F. ROW. N. Y. St. J. M., 93, 1, 191, 1907

Perforation of the jejunum and duodenum. B. LARSEN. Hygiea Stockholm, 93, 1, 191, 1907

Intestinal obstruction. A. BON. McCORMICK. Am. J. Med., 93, 1, 191, 1907

Intestinal obstruction. G. L. STERLING. New Orleans M. & S. J., 93, 1, 191, 1907

High intestinal obstruction post-operative. DEBILLY and acute pancreatitis. J. E. S. LEE. Penn. M. J., 93, 1, 191, 1907

Pathogenesis of congenital intestinal stenosis. H. LEBERRECHT. Zentralbl. f. Chir. 93, 1, 191, 1907

Intestinal stenosis and pathogenesis of acute intestinal stenosis. ANDREAS FORNICO and ALBERT VETZ. Deutsche Ztschr. f. Chir. 93, 1, 191, 1907

Some considerations on intestinal stenosis. F. DEBILLY. Arch. de Chir. Par., 93, 1, 191, 1907

Progress in the diagnosis and treatment of intestinal stenosis. W. E. LADD. Boston M. & S. J., 93, 1, 191, 1907

Spinal paralysis. R. M. GALT. F. S. KILLGORE and P. L. HART. Boston M. & S. J., 93, 1, 191, 1907

Report of a case of fecal impaction in the ileum for 43 days with recovery. R. H. HARRIS. J. Am. M. A., 93, 1, 191, 1907

A case of ileus caused by obstruction by Meckel's diverticulum. GALT. Rev. Med. Wochenschr. 93, 1, 191, 1907

Ileus caused by gallstones. POOL. M. 93, 1, 191, 1907

Acute embolic enteritis. HILDEBRAND. Arch. f. Verdauungs-Krankh. Berl. 93, 1, 191, 1907

- Multiple intestinal perforations occurring in the course of late relapse of typhoid fever. PRILLIOT and GALLAND. *Paris méd.*, 9 3 No. 20.
- The early diagnosis of intestinal cancer. F. H. NICHOLS. *N. Y. St. J. M.*, 9 3, xlii, 90.
- A case of primary sarcoma of the small intestine. R. PATRICK. *Zentralbl. f. Chir.*, 9 3, xxxvii, 414 [153].
- Vegetative adenomata of the superior portion of the small intestine stimulating pyloric stenosis. H. HART MAYER. *Presse méd.*, 9 3, xxi, 241. [153].
- The treatment of gastric and intestinal hæmorrhages. I. BOAS. *Berl. klin. Wchnsch.*, 9 3, i, 62.
- Contraction of intestinal anastomotic opening with extensive abdominal adhesions, oesal fistula. J. B. MURPHY. *Surg. Gyn. J. B. Murphy*, 9 3, ii, No. 1 [154].
- Resection of the intestine in a rare variety of strangulated cecal hernia. NICOLAUS FRIEDRICH. *Gazz. d. osp. di clin. Milano*, 9 3, xxvii, 480.
- A rare indication for intestinal resection. C. SULTAN. *München med. Wchnsch.*, 9 3, ix, 76.
- Experimental devascularization of the intestine with and without mechanical obstruction. J. S. HENDRY and C. C. COLUMBA. *Ann. Surg. Phila.*, 9 3, lviii, 506 (*Abst. p. 59, vol. xvi*).
- The question of cecum mobile. A. SCHMIDT. *Beitr. klin. Chir.*, 9 3, lxxxix, 639.
- Anastom. tumor of the cecum. E. SCHMIDT. *Beitr. klin. Chir.*, 9 3, lxxxix, 783.
- Etiology of Lane's kink, Jackson membrane and cecum mobile. F. G. CONNELL. *Surg. Gynec. & Obst.*, 9 3, xvi, 353. [154].
- The fetal peritoneal folds of Janssen, Treves, and Reid, and their probable relationship to Jackson membrane and Lane's kink. J. R. EASTMAN. *Surg., Gynec. & Obst.*, 9 3, xvi, 34. [155].
- The vermiform appendix in the Röntgen picture. COME. *Deutsche med. Wchnsch.*, 9 3, xxvii, No. 2.
- Divergences and cysts of the appendix. BÉZARD and VIGAROU. *Progresse méd. Par.*, 9 3, xxvi, No. 5.
- Hydro-appendix. DUBOUT. *Rev. de gynéc. et de chir. abdom. Par.*, 9 3, ix, N.
- Actinomycosis of the appendix. HUTCH. *Beitr. klin. Chir.*, 9 3, lxxxix, No.
- Appendicitis ex ocyure. RUSCHDOFF. *Med. Klin.*, 9 3, ix, 53. [156].
- A case of appendicitis due to ocyure. GARY and CHAZELLE. *Lyon chir.*, 9 3, ix, N. 4.
- Appendicitis and B. paratyphus. MINERSE. *Deutsche med. Wchnsch.*, 9 3, xxxix, 699.
- Phlebotomy and appendicitis simulating ureteral calculus. HOWARD LILLIBRAT. *Med. Herald*, 9 3, xxxi, 39.
- Chronic appendicitis. A. KASCHKE. *München. med. Wchnsch.*, 9 3, ix, 50.
- Shaking of Arnet's blood-eggs to the left in chronic appendicitis. W. A. SARGOLLO. *Chirurgia, St. Petersb.*, 9 3, xxxiii, 700.
- Appendicitis in women. TORREY. *Beitr. klin. Chir.*, 9 3, lxxxix, No.
- Appendicitis, with report of fatal cases. C. S. ALLIN. *N. Y. St. J. M.*, 9 3, xli, 313.
- A fatal case of appendicitis. R. S. E. TONG and B. BRADSHAW. *Australia. M. Gaz.*, 9 3, xxxix, 300.
- Tetany in case suppurative appendicitis in an adult. B. H. COPE. *Brit. M. J.*, 9 3, i, 879.
- Appendicitis and pulmonary tuberculosis. A. DE GAS. *Arch. méd. de Nantes*, 9 3, xxi, N. 7.
- Dysenteric pains in appendicitis. GUYE SCHLIZER. *Rev. de l'art. Par.*, 9 3, xxvii, No. 4.
- Metrocæcal appendicitis. J. A. JACKSON. *J. Am. M. Ass.*, 9 3, ix, 85. [154].
- Complication of case of appendicitis by abscesses in the liver. S. LAUSTONCHIKIN. *Sibirische Anstetg.*, 9 3, vi, 246.
- Diagnosis of chronic appendicitis, rendered precise and confirmed by radiography. DUBRY and FROSTELLE. *Par. chir.*, 9 3, No.
- The technique of appendicectomy. HERTZELANDER. *Deutsche Ztschr. f. Chir.*, 9 3, cxviii, 53.
- The surgical aspect of appendicitis. G. P. GAROSKY. *Ky. M. J.*, 19 3, xi, 286.
- Métopécol. A. NA. *Ann. Bull. et méém. soc. de chir. de Par.*, 9 3, xxxix, 444.
- Primary typhilitis. OSMAN. *Beitr. z. klin. Chir.*, 9 3, lxxxix, N.
- Gross hæmorrhagic dysenteric colitis; their differential diagnosis and surgical indications. MANNING. *J. d. praticiens, Par.*, 9 3, xxvii, No. 5.
- Colitis ulcerosa. Its etiology, diagnosis and treatment. JAKOW KAPLAN. *Prag. med. Wchnsch.*, 9 3, xxxviii, 17.
- The radical treatment for cancer of the colon. L. KRYNICKI. *Prag. chir. glück.*, 9 3, viii, 43.
- Complete non-descent of the colon and cecum in the adult. W. C. BOURNER. *V. M. Semi-Monthly*, 19 3, xvii, 1.
- Late conditions after excision of the large intestine by anastomosis between the ileum and sigmoid flexure. VON BROS. *Zentralbl. f. Chir.*, 9 3, xi, 608.
- Extensive resection of the large intestine for stricture producing hypertrophic tuberculosis. GIOVANNI RAZZANONI. *Clin. chir. Milano*, 9 3, xxi, 56.
- An attempt at surgical treatment of intestinal tuberculosis by eversion and high resection of the appendicoid sigmoid necrosis membrane. LEBLANC. *Rev. méd. d'Égypte*, 9 3, i, 2.
- Operative treatment of the ulcers of the sigmoid flexure and rectum. A. RYNDORF. *Prag. chir. glück.*, 9 3, viii, 54.
- Hæmorrhages caused by polypi of the rectum. MOC. *Rev. de chir. Par.*, 9 3, xxxix, No. 4.
- Electricity in rectal diseases. F. H. WILLIAMS. *N. Y. M. J.*, 9 3, xxvii, 875.
- Prolaps of the rectum. D. FINEST. *Clin. chir.*, 9 3, xxi, 37. [157].
- A practical anal bandage and bandage for prolapse of the rectum. DRECHER. *München. med. Wchnsch.*, 9 3, ix, No. 5.
- Modification of the combined method of operation for cancer of the rectum. DASTORF. *Zentralbl. f. Chir.*, 9 3, xi, No. 2.
- Operation when required, in all common rectal diseases, without general anesthesia or pain. W. F. BURKOW. *N. Y. M. J.*, 9 3, xxvii, 802.
- Anal imperforation in the new-born. GROSSE. *Gaz. méd. de Nantes*, 9 3, xxi, 6.
- Extra-anal, bloodless treatment of hæmorrhoids. JOSEF MA. *Arch. f. Verdauungs-Krankh.*, 9 3, xix, 83.
- Radical cure of hæmorrhoids simple and rapid procedure. DELATRA. *Par. chir.*, 9 3, No.
- Hæmorrhoid operations. L. WATSON. *N. Y. M. J.*, 9 3, xxvii, 755.
- A new operation for hæmorrhoids. ROBERT A. BACH. *N. Y. J. Am. M. Ass.*, 9 3, ix, 54.
- Radiology of the digestive tube. D. BOSSIERE. *Arch. méd.-chir. de Normandie, Le Havre*, iv, No. 5.
- Fluoroscopic of the gastro-intestinal canal. SKINNER. *Lancet-Clin.*, 19 3, ix, 34. [157].
- The influence of various contrast substances on the motility of the intestinal canal. F. GRODZINSKY. *Arch. Russ. Ray*, 9 3, xvi, 220.

Surgical diseases and injuries of the esophagus and the stomach. PRUZZ and MOSCONA. Deutsche Chir. 93
bnd, 406

Co-existence of false and true Meckel's diverticu-
lum. COHEN and MORGAN. Marseille méd. 93 1,
No. 7

Inflammatory affections which start from acquired
diverticuli of the sigmoid flexure. CAZÉ. ESTIMAS 90
Betr. z. klin. Chir., 93, bnd 1, 657

Diverticulitis. JOSE STANFORD. Boston M. & S. J.,
93 dival, 245. [147]

The uncus as factor in intestinal obstruction, the
report of case C. M. NICHOLSON. Lancet-Clin 93
cv, 25. [148]

Gastro-Intestinal Tract

Röntgenological diagnosis of affections of the stomach
EISENBERG. Berl. klin. Wchnschr. 93 1, No. 6

Instantaneous radiography of the stomach. G. W.
GUTH. Pittsburgh M. J., 93 1, 4

The results obtained by X-ray exploration in the
ventriculi. EMMO SCHUMANN. Zentralbl. f. Chir. 93
21, 51

Vicious circle after gastro-jejunostomy as demon-
strated by the Röntgen ray. H. W. VAN ALLEN. Am.
Gastro-enterol. 93 3, 2, 2

Technique and results of gastro-intestinal roentgenol-
ogy. ZIEGLER. f. Röntgenk. Radiumkonch. Leipzig
93 3, xv Nos. 4-5

Burns of the stomach caused by ingestion of
DeLoré and ARMAUD. Rev. de chir. Par. 93 2,
N. 4

Acute post-operative dilatation of the stomach and
pathogenesis. ARMAUD. Clin. chir. Milano
93, N. 2

A picture of diverticulosis of the stomach with
corresponding loss of any portion of the stomach wall.
GUTHRIE. Bull. et mémoires Soc. de chir. de Par. 93 xv

Tuberculosis of the stomach. DIERKS B. Zentr.
blatt f. d. Grenzgeb. d. Med. Chir. 93
448

Lesions of the muscles of the stomach secondary
peritonitis, their relations to disturbances of the
peristalsis. BIRCH and GARDNER. Lyon chir. 93
No. 4

A case of double stomas of the stomach. KAPLAN.
Ury. Allg. med. Zentral-Ztg. 93 bnd, 75

Acute occlusion of the biliary stomach. CILIA.
Marseille méd., 93 1, No. 7

Carcinoma involving the entire stomach, with
concomitant complete loss of stomach and
technique of stomach resection. F. SARRIS. Mi-
nner. Wchnschr. 93 1, 650

Gastric ulcer. E. E. CORNWALL. N. Y. M. J.
93 2, 8

The significance of gastric ulcer. J. C. JOHNSON.
J. Gastro-enterol., 93 3, 2

Gastric ulcer in the parietal. VON MULLER.
Linn. Wchnschr. 93 1, 214

Traumatic ulcer of the stomach; pyloric cancer. I.
Rev.bero-america de chir. med. 93 3, 200

Etiology and treatment of gastric ulcer. M. L.
STERN. Zentralbl. f. Chir. 93 21, 509

Pykrospasm and gastric ulcer. A. NETT.
München med. Wchnschr. 93 1, 760

Dietary and the fatal ulcer of the stomach. I.
Bull. méd. Par. 93 3, 200, No. 35

Benign tumors of the stomach. TROVITY. B.
lin. Chir. 93 bnd

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons.

General Conditions Commonly found
in the Extremities

- Re-formation of bone after resection. G. A. PHILL. *Edinb. M. J.* 9 3, x, 346. [162]
A few interesting cases of bone lesions. W. W. GRANT. *Med. Rec.* 9 3, lxviii, 690.
The etiology of rickets and calcium metabolism. W. DICKEL. *Deutsche med. Wochenschr.* 9 3, xxxix, 55. [163]

- Radiography of osteomyelitis. BRACA and PHILIPPI. *Gazz. d. Med. Par.* 9 3, lxxvi, N. 43.
Experimental contributions on the pathogenesis of acute haematogenous osteomyelitis. DUMAYER. *Deutsche Zeitsch. f. Chir.* 9 3, cxxx, Nos. 1-3.

- The diagnostic significance of the leucocyte count in osteomyelitis and tuberculosis of the bones in childhood. E. W. JENSE. *Boston M. & S. J.* 9 3, lxxv, 606. [163]
Chronic hypertrophic osteitis without bony formation or necrosis. LUYKEN. *Bull. et mèm. Soc. de chir. de Par.* 9 3, xxxix, 405. [163]

- Three cases of tuberculous disease of the lower end of the femur illustrating some points in pathology and treatment. W. F. D. WILKINSON. *Med. Press & Circ.* 9 3, cxlvi, 40. [164]

- Treatment of tuberculous bone diseases and sinuses with tuberculin. W. S. NICHOLS. *N. Y. M. J.* 9 3, xcvi, 878.

- Surgical tuberculosis. L. SEXTON. *Med. Rec.*, 9 3, lxxvii, 618.

- Surgical treatment of tuberculosis. H. ISERLIN. *Samm. klin. Vortr. Chir. Lapa.* 9 3, cxlviii, 700. [164]

- Treatment of bone and joint tuberculosis. KÖHN. *Deutscher chir. Kong.* 9 3, [164]

- Treatment of bone and joint tuberculosis. GABRIEL. *Deutscher chir. Kong.* 9 3, [165]

- X-ray treatment of bone and joint tuberculosis. F. SCHMIDT. *Zeitsch. f. orthop. Chir.* 9 3, xciii, 497. [165]

- Cystic tumor of the head of the femur. *Pres. Rev. de l'hop., Montevideo.* 9 3, vi, N.

- The causes of bone cysts. PERLES. *Policlin.*, Rome, 9 3, xc, No. 4.

- Multiple myxomas, and its association with Bence Jones' albumin in the urine. THOMAS SANDERSON. *Edinb. M. J.* 9 3, x, 31.

- Primary adamantinoma of the tibia. FISCHER. *Frankf. Zeitsch. f. Path.* 1913, xii, N. 3.

- Two cases of Paget's disease of the bones with etiological considerations. EISENBERG. *Progrès méd.* 9 3, xii, No. 3.

- The treatment of lime starvation. J. F. RUSSELL. *Med. Rec.*, 9 3, lxxviii, 57. [166]

- Injuries of the joints by projectiles. LEONARD SCHLIER. *Deutsche med. Wochenschr.* 9 3, xxxix, 600.

- Injuries to the articular cartilages of the knee joint. R. MORGAN. *Chir. J.* 9 3, xli, 1.

- A rarely observed form of traumatic lesion of the knee. SERRA. *Arch. di ortop. Milano.* 9 3, xxx, No.

- Diseases of joints and bone marrow. L. W. EL. *Am. J. Surg.* 9 3, xcvi, 8. [166]

- Considerations regarding the pathology and treatment of some common joint diseases. E. A. MURK. *Northwest Med.* 19 3, 97. [167]

- What can be done for the relief of our arthritic patients? J. A. BROUHAUSCH. *Am. Med.* 9 3, xix, 50.

- One hundred cases of acute arthritis among the negro laborers on the Panama Canal. W. BARTZ. *J. Am. M. Ass.* 9 3, lx, 605.

- The etiology of articular and muscular rheumatism. E. C. ROTHBLOW. *J. Am. M. Ass.* 9 3, lx, 3. [167]

- Rheumatoid arthritis. J. BARR. *Brit. M. J.* 9 3, l, 753.

- Rheumatoid arthritis in children. JAS. LUDLOW. *Edinb. M. J.* 9 3, 39. [168]

- Stiff and painful shoulders with loss of power in the upper extremity from injuries or inflammations of the shoulder joint. T. T. THOMAS. *Therap. Gaz.* 9 3, xcvi, 229.

- Pseudo-arthritis of the humerus associated with radial paralysis, intervention recovery. COCHET. *Bull. méd. de l'Algérie Alger.* 9 3, xciv, N. 5.

- Tuberculous arthritis of the wrist. R. LOZANO. *Chin. medicina, Madrid.* 9 3, xii, 55.

- The employment of heliotherapy in tuberculous arthritis. J. CHART. *Par. méd.* 9 3, V, 9.

- Joint tuberculosis. L. W. EL. *Internat. M. J.* 9 3, xi, 334. [168]

- Tuberculosis of the bones and joints and its homeopathic treatment. A. N. ROGATSKY. *North Am. J. Homeop.* 9 3, xcvi, 1.

- The treatment of tuberculous joints. J. L. PORTER. *Surg. Gynec. & Obst.* 9 3, xvi, 334. [169]

- Deformities which are secondary to tuberculosis of the knee. COMINO. *Arch. di ortop. Milano.* 9 3, xix, N.

- A new and simple treatment for acute traumatic subdeltoid bursitis. J. M. FLURY. *J. Am. M. Ass.* 9 3, lx, 24.

- Traumatic humpage. E. K. HERRON. *Phys. & Surg.* 9 3, xcvi, 7.

- Rupture of the biceps brachialis. ETTORI MARSHALL. *Gazz. med. lomb.* 1913, xix, 4.

- Infections of the hand. L. W. HOOK and G. J. ROSE. *Ann. Surg.* 9 3, lvi, 56. [169]

- Hand lesions following injuries of the upper extremities. H. BURCH. *Boston M. & S. J.* 9 3, cxviii, 56.

- Conservative treatment of hand injuries by means of antiseptic dressing. W. P. NICHOLSON. *Old Dominion J.* 9 3, xvi, 76.

- Extension transsections of the limbs, clinical study and therapeutic considerations of what is to be done in such cases. LERAT and ERBAUD. *Arch. méd.-chir. de Province.* 9 3, viii, No. 2.

- Arborescent epizoots of the knee. LAFAYETTE and DUBOIS. *Arch. gén. de chir. Par.* 9 3, vii, No. 3.

- A lecture on some obscure affections of the foot. A. H. TOWN. *Chir. J.* 9 3, xli, 42.

- Cold gangrene caused by vascular paralysis. WITTRO. *Zentralbl. f. Chir.* 9 3, xi, No. 6.

- The treatment of incipient gangrene. FRANK. *Zentralbl. f. Chir.* 9 3, xi, No. 3.

- The conservative treatment of diabetic gangrene of the lower extremity. DEWITT STETSON. *J. Am. M. Ass.* 9 3, lx, 26.

- Gangrene of the lower limb in a child twelve years of age; treatment by air heated to 770° cent. CUSTILLAT, LONARD and LAVIGNY. *Bull. méd. de l'Algérie, Alger.* 9 3, xciv, No. 5.

- Diagnosis and treatment of gangrene of the foot. MORGAN. *Zentralbl. f. Chir.* 9 3, xi, No. 14.

Fractures and Dislocations

- Fractures. Preliminary report of committee. EATES, HUKTIGWOODS, W. LUCAS, MARTIN and ROBERTS. T. Am. Surg. Ass. p. 2, May. [176]
- Fracture about joints. B. O. ADAMS. Colo. Med., p. 3, x, 7.
- Diagnosis and treatment of some fractures, especially into the joints. MEYER. Beitr. z. klin. Chir. p. 3, lxxvii, No. 3.
- The immediate treatment of fractures. W. W. GRANT. Colo. Med., p. 3, x, 24.
- Treatment of compound fractures. W. W. SPARROW. New Mex. M. J. p. 3, x.
- Traction after the method of codivilla. ANTONETTI. Arch. di ortop., Milano, p. 3, xxi, No.
- Treatment by massage and movement, particularly in relation to fractures. R. C. LAMBERT. Chir. J. p. 3, xli, B.
- Fractures, injuries and traumatic affections of the bones. STRAUSS. Arch. f. Orthop. Mechanotherapie u. Unfallchir., p. 3, xli, No. 3.
- Separate fracture of the greater tuberosity of the humerus. E. VAN ECKE. Chir. J. p. 3, xlii, 93.
- The treatment of simple fractures of the humerus complicated by immediate paralysis. SCHWARTZ. Paris med., p. 3, No.
- Diagnosis and treatment of fractures in the region of the elbow-joint. T. VOUGRAN. Med. Klin., p. 3, ix, 44.
- Isolated fractures of the cubitus associated with laceration of the head of the radius. KRUMHOLTZ. Presse med. Par. p. 3, xxi, N. 29.
- Final results of the treatment of fractures of the radius. F. SCHULTZ. Dissertation, Erlangen, p. 3.
- Treatment of fracture of the patella. R. BROWN. Calif. St. J. Med. p. 3, xl, 67.
- The diverse forms of fractures due to tearing of the anterior tuberosity of the tibia. LAWRENCE. Gaz. d. hop., Par. p. 3, lxxvii, N. 49.
- Fractures of the superior extremity of the tibia. J. MORLA. Clinique. Brux. p. 3, xlviii, 541.
- Fractures of the fibula. LOQUET and DUBERT. Gaz. d. hop. Par. p. 3, lxxvii, Nos. 39-41.
- Fractures of the calcaneum (recent fractures). SOUVERAIN and RIVIER. Rev. de chir. Par., p. 3, xxxiii, No. 4.
- The third metatarsal bone, posterior marginal fracture. DUBOIS. Lyon chir. p. 3, ix, No. 4.
- Primary traumatic dorsal complete rachocrural dislocation. A. M. MILLER. Surg., Gynec. & Obst. p. 3, xvi, 400. [171]
- Radial dislocation of the hand associated with isolated palmar laceration of the scaphoid bone. BRUCK. Deutsche Zeitschr. f. Chir. 19 p. 3, cxvii, No.

Surgery of the Bones, Joints, etc.

- The open treatment of fractures. E. H. BROWN. J. Lancet, p. 3, xxxiii, 91.
- The open treatment of fracture of the femur. A. McGLANAHAN. Surg. Gynec. & Obst. p. 3, xvi, 440. [172]

Operative fixation as cause of delay in union of fractures. J. H. ROBERTS. Ann. Surg. Phila., p. 3, hvi, 545.

Osteoplastic surgery in pseudo-arthritis of the tibia. VOUGRAN. Zentralbl. f. chir. u. orthop. Chir. Berl. 19 p. 3, vii, No. 4.

A new application of free osteoplastic operation in fixation of paralytic foot. G. FRATTINI. Zentralbl. f. Chir. p. 3, xl, 80. [172]

Treatment of fractures of the patella. SCHWARTZ. Arch. f. Orthop. Mechanotherapie. Unfallchir., p. 3, xli, No. 3.

The treatment of fracture of the patella. new method of replacing the extensor muscles. F. SCHULTZ. Zeitschr. f. orthop. Chir. 19 p. 3, xxi, 567. [172]

Operation and open method of treatment in paralytic festoons tuberculous of the joints. Von WALTHER. Deutscher chir. Kong., p. 3.

Some practical points concerning the operative treatment of bow-leg and knock-knees. PRESCOTT LUMISTON. Buffalo M. J. p. 3, hvi, 503.

Modeling osteotomy in flat foot associated with severe deformity of the bones. FRIEDMAN. Zentralbl. f. Chir. p. 3, xl, N. 3.

A case of the removal of the astragalus. H. THAYER. Michigan. Trans. M. J. p. 3, vii, 30.

Transplantation and grafting of bone. R. CALDWELL. J. Tenn. St. M. Ass., p. 3, 477.

The end result of erosion of the elbow for tuberculous. T. W. TOWN. Ann. Surg. Phila., p. 3, lvi, 430. [172]

Clinical and experimental observations on ivory implantations. I. KOVAC. Deutscher chir. Kong. p. 3, [173]

Arthrodesis of the hip-joint. VULPIUS. Monchen. med. Wchnschr., p. 3, ix, N. 2.

The operative treatment of fixed contractures and ankyloses of the knee joint. WATSON. Zentralbl. f. chir. u. orthop. Chir. Berl. p. 3, vii, 3.

Interposition of detached aponeurotic flaps for the surgical modification of ankyloses and stiffness of the joints. PUTT. Arch. di ortop. Milano, 19 p. 3, xxi, No.

Transplantation of fat in joint surgery. RUMER. Deutscher chir. Kong. p. 3.

Re-transplantation of joint-bones arthro-osteoplasty. LEONZ. Zentralbl. f. Chir. p. 3, xl, 605. [174]

Isolation of groups of muscles for the treatment of spastic paralysis. ALLMON. Zeitschr. f. orthop. Chir. Stuttg. p. 3, xxi, 441.

Free transplantation of tendons. EXPENDLEY. Beitr. z. klin. Chir. p. 3, lxxviii, 77.

The results obtained by implantation of silk tendons in the residual paralysis of poliomyelitis. ALLMON. Am. J. Orthop. Surg. p. 3, x, 119. [174]

Treatment of Volkmann's contracture. EMMETT G. ALEXANDER. Ann. Surg. Phila. 19 p. 3, hvi, 535. [175]

Technique of the movable stump in amputations. Z. SLAWINSKI. Zentralbl. f. Chir. p. 3, xl, 430. [175]

Amputation flaps. J. N. JACKSON. Surg., Gynec. & Obst., p. 3, xvi, 454. [175]

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

Impacted fracture of the body of the first lumbar vertebra laminectomy, rapid recovery following decompression of the cord J B MURPHY Surg. Clin. J. R. Murphy 9 3, 1, N [176]

Etiology and treatment of scoliosis VACCARI Arch. di ortop. Milano, 9 3, xxx, N

A unique case of congenital scoliosis J F VER and J W L SERVICE Arch. Pediatres, 9 3, xxx, 276

Spondilic scoliosis VACCARI Arch. di ortop., Milano, 9 3, xxx, N

The use of corrective plaster jackets in the treatment of scoliosis E. S. HATCH New Orleans M & S J 9 3, iv, 709 [176]

The new method of treating scoliosis by Abbott's method of plaster-of-Paris dressings OHLAR VETRUS Deutsche med. Wochenschr. 3, xxxv, 695

Abbott's method of treating lateral curvature of the spine J WHESTERL Berl. klin. Wochenschr. 9 3, i, 671

Abbott's method of treatment of old scoliosis CALOT and PARVAT Paris med. 9 3, No. 21

Pott disease S. L. McLENDY Pittsburgh M J 19 3, 1, 35

Vertebral tuberculosis of traumatic origin DELITALA Arch. di ortop., Milano, 9 3, xxx, N

Bone transplantation in tuberculous spondylitis FIED H ALICE J orthop. Chir. Stuttg. 9 3, xxx, 460

Typhoid spondylitis ARDEN-DIELLEN, RAY, COUD R. ANDREZ ACHER. Bull. méd. de l'Algérie Alger 9 3, xxxv, N 5

A case of typhoid spondylitis F VER and BOVIER. Lyon med. 9 3, xxx, N 14

An experimental study of bone growth and the spinal bone transplant FIED H ALICE J Am M Ass., 9 3, ix, 944 [176]

Sarcoma of the spinal meninges. CHERRY J de méd. de Bordeaux, 9 3, xix, No. 5

The operative treatment of lues of the central nervous system. SCHWABACH. Zentralbl. f. d. Gesamte d. Med. Chir. Jena, 9 3, xvi, No. 4

A very large multilobular sarcoma in the cervical spinal cord MINKOWSKY and CAIRNS Deutsche Zeitschr. f. Nervenz. Leipzig 9 3, xlv, 146

Present and future of spinal cord surgery M RORR-M Berl. klin. Wochenschr. 9 3, i, 544

Malformations and Deformities

The correction of congenital equinovarus report of thirty six cases. CHAS F EDERBACH Northwest Med., 9 3, 97 [177]

Congenital synostosis of the forearm H M LAMB Deutsche med. Wochenschr. 9 3, xxxv, 704

A case of congenital ankylosis of the elbow in an arm which was malformed and retarded in growth. C. BYCROWLEY Zeitschr. f. orthop. Chir. 9 3, xxxi, 430

Statistics of congenital malformations recorded in J. par. II. HINOMOTO Arch. f. Orthop. Mechanotherap. u. Unfallchir. 9 3, xvi, 9

The prognosis of the congenital luxation of the hip-joint. ALBERTUS PLANTER. Dissertation, Utrecht, 9 3

Double congenital luxation of the hip-joint KIKINSONO Chirque, Par. 9 3, ix, No. 4

Fetal disturbances of development of the pelvis and the spinal column as the cause of deformities, especially of scoliosis and congenital luxation of the hip-joint. EDWARD FALE Zeitschr. f. orthop. Chir. 9 3, xxxi, 545

Deformities of the thigh resulting after reduction of congenital luxation of the hip-joint. HOFVATH Beitr. z. klin. Chir. 9 3, xxxiv, No. 4

Nervous hyperexcitability observed in certain cases of congenital luxation of the hip-joint their influence on the course of treatment of the luxation. GORDON Gaz. d. hôp. Par. 9 3, xxxvi, No. 46

Hereditary transmission of congenital dislocation of the hip-joint HAYASHI and MATSUOKA Zeitschr. f. orthop. Chir. 9 3, xxxi, 400

A case of congenital malformation of the lower limbs treated by operation. FELDHOFF, Berl. klin. Wochenschr. 9 3, i, N 6

The treatment of congenital club-foot. OHLAR VETRUS Deutsche med. Wochenschr. 9 3, xxxv, 585

The flat-foot in children and in adults LACER Gaz. d. hôp., Par. 9 3, xxxvi, No. 27

The valgus deformity of the foot LOOMER Arch. f. Orthop. Mechanotherap. u. Unfallchir. 9 3, xii, No. 3

Coca vera some observations on this condition with special reference to the question of spontaneous recovery from this deformity JAS W SYRER Boston M & S. J., 9 3, clviii, 495 [177]

Comment on Gager's article entitled Study of hollow claw foot. MULLER Beitr. klin. Chir. 9 3, xxxiii, No. 3

Etiology and treatment of genu valgum HEDRICH HEDRICH Deutsche med. Wochenschr. 9 3, xxxv, 703

Arrests of development in the upper and lower extremities. E. LÖNNSTERN. Zeitschr. f. orthop. Chir. 9 3, xxxi, 434

The orthopedic surgeon relation to chronic disease. L. T. S. AND CHITON M. Bull. 9 3, i, 7

Statistical account, for the first 10-year period, of the activities of the orthopedic section. C. ACCIARO Arch. di ortop. Milano, 9 3, xxx, No.

Twelve years of orthopedics, therapeutic experiences and methods of treatment WILHELM BECKER Arch. f. Orthop. Mechanotherap. u. Unfallchir., 9 3, xii, 44

SURGERY OF THE NERVOUS SYSTEM

Inclusion peripheral neuritis. F. DUBOIS, R. PIERRET and VERMARE. *Encephale* 9 3, 16, 37.

A case of polyneuritis of the lower limbs after severe hemorrhage and protracted elevation of the limbs. E. DEMO, K. PIERRET and E. VERMARE. *Arch. gén. de chir.* 9 3, vii, 32.

Four cases, in one family of neuromyofibrosarcomatosis. ALFRED M. TIERES. *Zschr. f. klin. Med.* 10 3, lxxvii, 50.

Malignant sympathetic tumor of the cervical N. sympathicus, initially differentiated into benign gran-

ulosemoma. K. MARTINE. *Frankl. Zschr. f. Pathol.*, 19 3, xii, 44.

Stretching of the solar plexus on account of tubercle gastric crises. LEROUX. *Deutsche Zschr. f. Chir.* 9 3, cxvii, No. 2.

Paralysis of the radial nerv. due to accident or lead poisoning? P. U. EWALD. *Arch. Schwere- u. Ztg.* 9 3, xvi, 64.

Results obtained with very acute Strömmer and Kriesch. *Beitr. klin. Chir.* 9 3, lxxviii, No. 3.

DISEASES AND SURGERY OF THE SKIN, FASCIA AND APPENDAGES

Multiple lymphoid tumors of the skin: report of case. JAS. M. WATFIELD. *J. Cutan. Dis.* 9 3, xxi, 45.

Superficial pyogenic abscesses with an enormous phlycten. MA. CLAUDE. *Arch. gén. de chir.* Par. 9 3, vii, No. 3.

Melanosis of the skin and the subcutis. P. U. SOROT. *Arch. f. Dermatol. Syphilis.* 9 3, cxvi, 79.

The action of X ray on the development of cutaneous carcinoma: study of radiographic and macroscopic pictures of cutaneous carcinoma and their evolution. J. de physiol. et de path. gén. Par. 9 3, No.

Conservative treatment of cranial abscess. SOLOVJEV. *Prakt. Vrach. St. Petersburg* 9 3, xiv, 3.

Contribution to the study of free transplantation of fascia in the human organism. O. M. COTARE. *Wien. klin. Wochenschr.* 9 3, cxvii, 187. [177]

Free transplantation of fascia. W. SCHAEFER. *Deutsche Zschr. f. Chir.* 9 3, cxvii, No.

Treatment of chronic ulcers of the leg with special reference to symphysiology and diagnosis. L. ADAMS. *Internat. J. Surg.* 9 3, xvi, 8.

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, et

Fundamental problems in the study of tumors. FRANK. *Frankl. Zschr. f. Path.* 9 3, xii, No. 3.

Are tumors caused by trauma? J. ABERN. *Hypoc.* 9 3, lxxv, 93.

Cancer. D. CRAGG. *J. M. M. Am.* 9 3, ix, 8.

The science of cancer. HOFFER. *T. Am. Gynec. Am.* 9 3, May. [178]

Malignant tumors among the negro population of Africa. HOFFER. *Rev. suisse de med. lile* 9 3, xii, No. 3.

The laboratory diagnosis of malignancy. H. R. ALFORD. *Lancet-Clin.* 19 3, cxv, 44.

The cancer problem. L. COLLOMBO. *N. Y. St. J. Med.* 1913, ix, 87.

The cancer problem. L. D. GREENGLASS. *Med. Summary* 19 3, xxxv, 45.

Report of four years work on cancer. T. A. HOGAN. *Illness* 9 3, xii, 47.

On behalf of the fight against cancer. LANTARINI. *Arch. Ital. di med. Napoli* 9 3, xvi, No. 3.

The present status of cancer. B. B. CATES. *J. Tenn. St. M. Ass.* 9 3, 480.

The blood catalase in malignant tumors. G. L. ROBINSON. *N. Y. M. J.* 9 3, cxvii, 84.

Cancer and its cure. J. C. BATESON. *Med. Summary* 9 3, xxxv, 40.

Processes of spontaneous healing in cancer. SCHICKLER. *München. med. Wochenschr.* 9 3, ix, 95.

The effect of general contraction of the peripheral blood-vessels upon some cancers. C. WALKER and H. WHITTINGHAM. *Lancet, Lond.* 9 3, cxvii, 8. [178]

Professional diseases of photographers: lesions of the blood cancer. TIERES. *Paris med.* 9 3, No. 7.

Discussion of the non-operative treatment of malignant disease: secondary and rhy. T. J. HOFFER. *Proc. Roy. Soc. Med.* 9 3, i, 19.

False transitions between normal and cancerous epithelium. ROT. *J. Exp. Med.* 9 3, xvii, 404. [179]

Pododermatosis. BROWNE. *NEBRASKA. Prati. chir. mod.* 9 3, ix, 200.

A transplantable new growth of the foot producing cartilage and bone. T. RILEY. *J. Exp. Med.* 9 3, xvii, 406. [179]

Observations of chicken sarcoma and the alterable causal agent thereof. ROY, PETTY and M. SMITH. *Berl. klin. Wochenschr.* 19 3, i, 637.

Phylloides of neoplastic origin. WIRAL. *J. d. praticiens* Par. 9 3, xvii, No. 7.

Inflammation. P. G. WOOLLEY. *Lancet-Clin.* 1913, cxv, 400.

A case of sporotrichosis. M. BREMER. *Med. Rundschau* 1913, lxix, 32.

Not on the first case of sporotrichosis observed in Alger. GONZALEZ and LORRAINE. *Bull. méd. de l'Algérie*, Alger 9 3, xvii, No. 6.

Rabies. O. McD. VILL. *St. Paul M. J.* 1913, xv, 63.

The diagnosis and treatment of rabies. K. B. H. GELANDER. *Med. Fortnightly* 9 3, xvi, 79.

Rabies pathogenesis: age generally overlooked. M. B. WILSON. *J. Am. M. Ass.* 9 3, ix, 104.

A case of tetanus. CHAUFFARD. *J. d. praticiens* Par. 9 3, xvii, No. 14.

Anatomical-clinical forms of the post-operative cystic parametritis following removal, without drainage, of hydralid cysts. *Diriv. Arch. med-chir de Province, Poitiers*, 93 vol. No. 3.

Shock physiology. A. W. COLECORD. *Internat. J. Surg.* 93 xxvi, 3.

Shock and its management. I. HARDY. *Vol. XI J* 93 vii, 34.

New advances in plastic surgery. MUTHENGERACHEN. *Beitr. z. klin. Chir.* 93 lxxvii No. 2.

A new method of experiments in transplantation. JARONIA. *Excerpt. Cas. Med. Mosk.*, 93, li, 367.

Grafts and transplantations of tissues and organs. DOMANI. *Clin. chir. Milano*, 93, xvi N. 3.

The transplantation of rib cartilage into pedunculated skin flaps, an experimental study. J. S. D. VAN. *Bull. Johns Hopkins Hosp.* 93, xxv, 10. [179]

Pathogenesis of late deaths after burns. LYNN CARPENT. *Nuova riv. clin-terap. Napoli*, xvi.

Sera, Vaccines and Ferments

The preparation and employment, in a series of cases, of potent polyvalent antistaphylococcal serum. B. A. THOMAS. *J. Am. M. Ass.* 93, lx, 970.

Tetanus successfully treated with antitetanic serum. L. J. FRIEDMAN. *N. S. M. J.* 93 xxvii, 715.

Further observations on the treatment of tetanus with magnesium sulphate. T. KOCICA. *Cov. Bl. schvica. Arzte* 93 xlii, 97. [180]

Intensive serotherapy cured case of tetanus, post-diphtheritic paralysis and serotherapy. CHANOW. *Paris med.* 93 No. 7.

Serotherapy of malignant tumors. FRIEDMAN. *Schweiz. Woch. klin. Wchnsch.* 93, xxvii, 529.

Complement-fixation tests for streptococcus, gonococcus, and other bacteria in infective deforming arthritis and arthritis deformans. T. W. HARRISON. *J. Am. M. Ass.* 93 lx, 308.

Piquet's catenose reaction, diagnostic value of the general reaction. LEONORA CHIARA ALLIOTTI. *Riforma med.* 93 xxix, 37.

The value of tuberculin in diagnosis. L. J. MOORMAN. *Med. Herald*, 93 xxvii, 144.

Tuberculin diagnosis and tuberculin therapy. OTTAVIO MULLER. *Med. Cor. Bl. d. württemberg. Arzt. Ver. Stuttgart*, 93 lxxviii, 3.

The so-called focal tuberculin reaction in tuberculosis of bones and joints. DELITALA. *Arch. di ortop. Milano* 93, xxx, 140.

Tuberculin treatment. W. RUMPTOW. *Med. Council*, 93 lxxv, 35.

Vaccination for various infections. Rib inhib. micro-organisms. W. BRUGGARTEN LITCKE. *Laport, Lond.* 93, clxxxv, 55.

Experiments with Abderhakken ferment reaction in carcinoma. FRANK and HILGARD. *Berl. klin. Wchnsch.* 93 l, No. 4.

The employment of protective enzymes of the blood as means of extracorporeal diagnosis. C. P. McCORD. *Burg. Gynac. & Obst.* 93 xvi, 48. [180]

Organic-extract therapy. W. SCHULZ and T. FELLNER. *Fortschr. d. Med.*, 93 xli, 477.

Immunity. J. R. HALL. *J. Mo. St. M. Ass.* 93 lx, 332.

The relative value of living or dead tubercle bacilli and of their endotoxins in solution in active immunization against tuberculosis. K. VON KROCK. *Med. Rec.*, 93 lxxvii, 507. [181]

A modification of Spengler's rapid precipitation method

for the estimation of approximate immunity against tuberculosis. WALTER H. FRANK. *Practitioner Lond.* 93, xc, 73.

Anaphylaxis, report of. C. M. J. MACRODER. *New Orleans M. & S. J.* 93 lrv, 709.

Blood

Further studies on the chemistry of blood serum. A. A. EMMER. *J. Exp. Med.*, 913, xvii, 444. [182]

The relation of the leucocytic bacteriolysis to body fluids. W. H. MARWARD. *J. Exp. Med.* 93 xvii, 409.

Condition of the blood resembling leucemia, in association with malignant tumor. VON DIEBALLE and HELZ. *Erzt. Folia hematol. Arch.* 93, xv, 50.

The antiphlogistic effect of the passive hyperemia treatment. SCHULZ. *Beitr. z. klin. Chir.* 93 lxxvii No.

Occlusal blood, its value in diagnosis and treatment. G. F. KOTLER. *Med. Sentinel* 93 xii, 860.

Chemical tests for occlusal blood. H. E. ROBERTSON. *J. Lancet*, 93, xcix, 0.

Circulation of the blood in the lungs, with closed and with open thorax and the influence thereon of high or low pressure. FRIEDRICH VON ROSEN. *Deutsches Arch. L. klin. Med.* 93, cxi, 383.

Researches on the physico-chemical changes of the blood during the course of anaphylaxis. EDUARD ZIMM. *Zschr. L. Immunitätsforsch.*, 93, xvii, 47.

The detection of foreign substances in the blood by dialysis and optical methods and the use of such methods and the principles underlying them in pathology. E. AMERSON. *Beitr. z. klin. d. Infektionskrankh. u. Immunitätsforsch.* 93, l, 243.

Subcutaneous medication in anemias. M. K. ROBIN. *Tex. St. J. Med.* 93, viii, 235.

Hæmorrhage of the new-born. J. W. AMERSON. *Colo. Med.*, 93 x, 0.

Hæmorrhagic disease of the new-born infant treated by horse-serum. W. B. JORDAN. *J. Am. M. Ass.* 93 lx, 54.

Hæmorrhagic conditions in children-pathology-etiology treatment. A. L. SCHMID. *Arch. Pediat.*, 93 xxx, 5.

Red and white blood corpuscles found well preserved in the region of traumatic hæmorrhage in cadaver interred for four years. LARSEN and MORTSTED. *Gaz. hebdom. d. sc. méd. de Bordeaux*, 93, xxxvii, No. 5.

Hæmophilia in women. CYRILLUS. *Nomastich. I. Geburtsh. Gynäk.*, Berl. 913, xxxvii, No. 4.

A chemical study of the coagulation time of blood. LEE and WHITE. *Am. J. M. Sc.* 93, cxiv, 495.

What is the practical surgical value of determining the coagulability of the blood? SCHLOSSMANN. *Deutscher ch. Kong.* 93. [182]

Remetal agents which specifically check coagulation and decrease the blood pressure in the female genitalia. L. FORTMEYER. *Biochem. Zschr.* 93 xlii, 68.

The new method of hæmostatics and treatment of wounds by the compound of Kocher-Peelo. FORMO. *Cov. Bl. f. schweiz. Arzte*, 93, xliii, No. 3-14.

Gelation as an internal styptic. E. RUMPTOW. *Med. Klin.* 93, lx, 593.

Coagulation of the blood and its value in obstetrics and gynecology. DRACO. *Schmidt's Jahrb. Lege. Mar.*, 93, 5.

Thromboses and embolisms after gynecological operations. THILLODOR VON WAGNER. *Beitr. klin. Chir.* 93, lxxvii, 37.

Injection of sugar as prophylactic against thrombosis. KROCK. *Deutsche Zschr. L. Chir.* 93 cxi, No. 1-2.

Simplified transfusion. S. FORT. J. Am. M. Ass., 19 3, 12, 264.

Infection of physiological salt solution. A. TIER. Zentralbl. f. Chir. 9 3, 1, 554.

So-called congenital dropsy. FRIEDRICH. München. med. Wchnsch. 9 3, 12, 937.

Blood and Lymph Vessels

A case of chronic phlebitis in which multiple aneurysms occurred. R. G. CHASE. Brit. M. J. 9 3, 1, 876.

The value of angiography in the diagnosis of aneurysms of the abdominal aorta: presentation of case and descriptive X-ray plates. C. A. FRIEDMAN. Wash. M. Ann., 9 3, 22, 91. [183]

A new method of suturing blood vessels. SIVIO. Polska. Deutsche Ztschr. f. Chir. 9 3, 12, 560.

A case of transposition of the large vessels. EISEN. Linz. Zentralbl. f. Gynäk. 9 3, 22, 370.

Primary tumors of the vascular envelopes. GEMO. FERRARIO. Clin. chir. Milano 913, 22, 549.

Obstruction of the inferior vena cava. HERRARD. Gaz. d. hôp. Par. 9 3, 12, 360.

Varicose enlargement of the ensa asphens: the point of its insertion into the vena cruralis, simulating crural hernia. G. MARCETTI. Gazz. internaz. di med. chir. Napoli 9 3, 81.

Varicose phleboma. POTERAT. Clinique, Par. 9 3, 22, 7.

Aneurysms external carotid artery. A. P. ROOSE. J. Indiana St. M. Ass., 9 3, 22, 16.

The treatment of arterial hamatomata. BURY. J. d. praticien, Par. 9 3, 22, 10 5.

Ectasis of the ends of the lower extremity. KILMER. Berl. klin. Wchnsch. 9 3, 12, 370.

Operation for embolus of the femoral artery. E. KIR. Hygien. Stockholm, 9 3, 22, 75. [184]

Wetting operation and the impeded circulation. W. A. ORRILL. Arch. Zet., 9 3, 22, 303. [184]

A case of marginal lymphogranulomatosa. FAIRER. J. sc. et med. de Portland, 9 3, 22, 4.

Reply to the criticism by Kuter of my article on the development and disappearance of the lymphatic glands. S. B. DE GROOT. Deutsche Ztschr. f. Chir. 9 3, 22, 162.

Poisons

Infection by micrococci tetragones in man. I. LEWIS. Præg. chir. gæck., 9 3, 22, 35.

The treatment of infections. E. H. THOM. Internat. J. Surg. 9 3, 22, 20.

A case of acute septicopycemia. T. G. ORR. Med. Rec. 9 3, 22, 7 1.

Cultural properties of certain species of coli bacillus. DINDON. NARONK. Zentralbl. f. Bakteriol., 19 3, 12, 60.

Study of the bacterial flora in the surrounding air in hospitals and the field of operation. VITTOGIO. PRICINELLI. Riv. osp. 913, 22, 297.

The occurrence of tubercle bacilli in the circulating blood. H. DREXLER. Med. Klin. 9 3, 12, 560.

Tubercular bacilli in the circulating blood. EISEN. FRIEDRICH. Deutsche med. Wchnsch. 9 3, 12, 337.

A new agar for the rapid development of the tubercle bacillus. GEMO. VALLETTI. Zentralbl. f. Bakteriol. 913, 12, 22, 30.

Surgical Therapeutics

The treatment of cancer by colloid copper. G. HENSEL. and R. J. COVINE. Med. Press & Circ. 913, 22, 347.

The influence of colloidal silver on the opsonic index. WIEGAND. and ON. ZUSAROW. München. med. Wchnsch., 19 3, 12, 583. [184]

The effect of heavy metals on malignant animal tumors. CARL. LEWIS. Berl. klin. Wchnsch. 9 3, 12, 541.

The effect of mercury preparations on the growth of mouse carcinoma. STANISLAW. SIKORSKI. Wars. klin. Wchnsch. 9 3, 22, 577.

Comparison of the action of adrenalin and the active principle of extracts of the hypophysis. HODGE. N. Argentin. med. Buenos A. res., 913, 22, 10.

Scopolamine. SIKORSKI. Zentralbl. f. Gynäk., 19 3, 22, 22, 14.

On the value of peritoneal lavage in the after treatment of laparotomy patients. VOET. BASTON. Zentralbl. f. Chir. 19 3, 22, 411.

Experiences with sponges in surgical cases. HERRARD. Fortsch. d. Med., 9 3, 22, 437.

The employment of pease and in therapeutics. BRYAN. Gaz. d. hôp. Par. 9 3, 12, 370, No. 42.

Treatment of wounds by sugar. MACCART. Zentralbl. f. Chir. 9 3, 12, 330.

Dressing of burns. PLACQUET. Bull. méd. Par. 19 3, 22, 10 31.

The employment of formal in minor surgery. ENGEL. Progrès méd. Par. 913, 22, No. 7.

Surgical Anatomy

The ligaments of the patella. J. P. WARRACK. Long. Island. M. J. 9 3, 22, 35.

Innervation of an ulnar arch aneurysm. W. F. R. PHILLIPS. Anatomical Rec. 9 3, 22, 31.

Electrology

Burns produced by X-rays. J. M. DE PUELLES and RUIZ. Ann. d'Electrolog. et de radiol. 9 3, 22, 35.

A new unit of X-ray power. S. TUCKER. Arch. Radiol. Ray. 9 3, 22, 457.

Experimental investigations on penetrating X-ray therapy. ROSE and K. G. Arch. Strahlentherap. 9 3, 22, 4.

Comparison of the influence of thorium-X and Röntgen rays. KRAUSE. Berl. klin. Wchnsch. 913, 12, 3.

Four years of experiments with Röntgen ray apparatus with an autotransformer (rectifier) and certain important modifications of the apparatus. GEORGE. München. med. Wchnsch. 9 3, 12, 47. [184]

A case of lymphogranulomatosa treated by radium. D. F. D. TUCKER. Arch. Radiol. Ray. 9 3, 22, 413.

Treatment of malignant tumors with radio-active substances. CARL. München. med. Wchnsch. 9 3, 12, 106. [184]

Surgical reflections on heliotherapy in cutaneous affections of children. LARSEN. Deutsche Ztschr. f. Chir. 9 3, 22, 106.

Schographs on silver bromide paper, method both considerably simplified and cheaper radiography. F. V. KNOX. Arch. med. Zentral-Ztg. Berl. 19 3, 22, 370.

Radium as an aid in the treatment of malignant neoplasms. W. FREYDENTHAL. Internat. J. Surg. 10 3, 22, 30. [185]

The influence on deep-seated carcinomas of X and radium rays. ARNDT. KNOX and GILLES. München. med. Wchnsch. 9 3, 12, 137. [186]

Notes from the X-ray department of St. Bartholomew Hospital. STUART. Arch. Radiol. Ray. 913, 22, 41. [186]

Some experiments with ionic medication. V. S. FORT. Arch. Radiat. Ray 913, xvii, 423.

Military and Naval Surgery

The action of pointed bullets. LORON. Deutsche med. Wchnsch. 9 3, xxix, No. 3.
Injuries produced by modern fire arms in the various tissues. P. LUCIACCO. Policlin. Roma, 9 3, xi, 549.
Treatment and dressing of gunshot wounds of the chest and the abdomen on the battle-field. SOMER. Militärarzt, Wien, 9 3, xlvii, 3.

Surgical Diagnosis

Examination of the patients in surgery. HARTMAN. Presse méd., Par. 9 3, xxi, No. 35.
The clinical value of colloid anast, according to the procedure of Salkowski and Kojko, for the diagnosis of cancer of the liver. SZCZEPANOW. Presse méd. Par. 9 3, xxi, No. 27.
Practical precautions for the avoidance of erroneous interpretations based on positive radiographies as the sole means of examination. VOGT. Arch. d. electric. méd., Bordeaux, 9 3, xvi, No. 154.
The necessity and means for early diagnosis in malignant diseases. W. E. SEVOUR. Ky. M. J. 9 3, xi, 201.

GYNECOLOGY

Uterus

On malignant tumors developing in the uterine stump after supra-vaginal amputation. H. CHITT. Zentralbl. f. Gynäk. 1913, xxvii, No. 7.

Indications furnished by urinary exploration in operative indications of cancer of the uterus. VIOLET and ALIBARD. Rev. de gynéc. et de chir. abdom., Par. 9 3, xi, No. 4.

Late recurrence of cancer of the cervix of the uterus. CRAMER and P. VOLLER. J. de méd. de Bordeaux, 9 3, xlii, No. 3.

The treatment of inoperable carcinoma of the uterus. ASCHENB. Med. Klin. 9 3, ix, 707.

Marked influence of mesothorium raying on cervical cancer. S. MENDEL. Therap. d. Gegenwart, 9 3, iv, 49.

Chorio-epithelioma recurrence three years after invasion of the spinal canal, with the secondary growth. ELLIOTT. Can. Surg. Gynec. & Obst. 9 3, xvi, 36.

Adenomyomas of uterus and rectum. RASPINI. Ginecologia, Milano, 9 3, ix, No. 9.

Fibroids and carcinoma of the uterus. TOSCHER and SAINT MARTIN. Toulon med. 9 3, xv, N. 6.

Electrical coagulation in the surgical treatment of cancer especially of uterine cancer. ARIET. Berl. klin. Wchnsch. 9 3, i, 304.

Our opinion of the X-ray treatment of uterine myomata. LAQUENNER and DELLEUR. Fortsch. a. d. Geb. d. Gynäk. 9 3, xi, 1.

Deep radiotherapy in gynecology: the treatment of myomata. ALBERT SCHWABER. Arch. d'electric. méd. Bordeaux, 9 3, xxi, N. 356.

Red degeneration of uterine fibromyomata. SMITH and SKE. Proc. Roy. Soc. Med. 9 3, vi, 3.

X-ray treatment of fibromyomata of the uterus. CHALMERS and STAVENBERG. Ann. de gynéc. et d'obst. Par. 9 3, x, No. 2.

The treatment of fibroid tumors, with report of 700 cases. E. McDONALD. Am. Med. 9 3, xix, 16.

Radiotherapy of uterine fibromata. SIKORSKY. Rev. de gynéc. et de chir. abdom. Par. 9 3, xi, No. 2.

Etiology and treatment of uterine hemorrhages. HINCK. Monatsschr. f. Geburtsh. Gynäk., Berl. 9 3, xxxvi, N. 4.

Managers in uterine hemorrhages. VON DEN HOFVICK. Notend. Tijdschr. Geneesk. 9 3, i, 666.

Pathological uterine hemorrhages. W. R. BROOKHUIS. J. Ark. M. Soc. 9 3, ix, 55.

X-ray therapy in uterine hemorrhage. A. FOCKER. Wien. med. Wchnsch. 9 3, lxxi, 995.

Clinical observations about the action of hemostats in uterine hemorrhages. O. S. PARNASOFF. Vrach. Gaz., 9 3, xi, 306.

The therapy of marked menorrhagia. A. RUCK. Deutsche med. Wchnsch. 9 3, xxxix, 653.

Menorrhagia and metrorrhagia of puberty: etiological and therapeutic considerations. RAILLIET. Arch. méd. chir. de Province, Poitiers, 9 3, viii, No. 3.

X-rays in the treatment of metrorrhagias. M. URICE. WATKIN. Scalpel et Lith. méd. 9 3, lxx, 463.

Dysmenorrhoea. J. H. CARSTENS. Cleveland M. J., 9 3, xii, 11.

Anomalous and vicarious menstruation. D. J. DOWNING. Med. World, 9 3, viii, 144.

Treatment of amenorrhoea. FRIED. Deutsche med. Wchnsch. 9 3, xxxiv, 675.

Menstruation and uterus. C. G. V. HOTTEN. Ned. Maandchr. Verloof. en Vrouwen- en Kindergeneesk., 9 3, li, 27.

Interstitial tuberculous of the vaginal portion of the cervix. PETIT DUTAILLIER. Gynécologie, Par. 9 3, xvii, N.

Foreign bodies in the uterus. G. M. KANTAN. Jeff. Vrach. Gaz. 9 3, xi, 342.

Vascular mole in the uterus. SAUVAGE. Ann. de gynéc. et d'obst. Par. 9 3, x, 1.

Atresia of the cervical canal caused by crusts. MIZEL. Ann. d'obst. gynecol. 9 3, lxxv, 24.

Prolaps and accident. E. MARTIN. Anal. Sackverant. Ztg. 9 3, xix, 7.

Polypus complicating inversion of the uterus and illustrating the difficulty of diagnosis. TURNER. J. Obst. & Gynec. Brit. Emp., 9 3, xxi, 90.

Incontrollable vomiting and retroversion of the uterus. HILZMONT. Rev. méd. de l'est, Nancy 9 3, xiv, N. 6.

Arteriosclerosis of the uterine vessels. J. F. FROCH. Hahnemann Monatsch., 9 3, xlvii, 213.

Contra-indications to cauterizing. K. T. FRANK. N. Y. M. J. 9 3, xxvii, 801.

Origin and prevention of perforations of the uterus and vagina in curettement of subcarcinomas. E. G. OETTINGER. Frauenarzt, Berl., 9 3, xxviii, 146.

The undeveloped anteverted uterus and the sterile woman DEWITT O WILCOX. *J Am Inst. Homoeopathy*, 9, 3, 833. [190]

The relaxation of the cervix in the surgical treatment of anteversion of the uterus S DELLÉ CANTINI. *Arch. Ital. di ginec.* 9, 3, vii, 30. [190]

Hysterectomy for the cure of prolapse of uterus. W. A. H. SELLMAN. *Am. J. Obst. & Gyn.* 9, 3, lviii, 683. [190]

A discussion on hysterectomy its indications, with an analysis of 77 cases. ORSHOFF. *Proc. Roy. Soc. Med.*, 9, 3, 4, 687. [190]

The after-results of operations for uterine displacements. GILLES. *Proc. Roy. Soc. Med.* 9, 3, vi, 62. [191]

The technique of ventral fixation of the uterus and its operations. BRIDGES. *Proc. Roy. Soc. Med.*, 19, 3, 1, 70. [191]

Shall we remove the uterus between tubes and ovaries are removed? W. H. CHAMBER. *Lancet-Clon.* 9, 3, clx, 598. [191]

Post-operative results of amputation of the cervix. A. A. LEONARD. *Surg. Gynec. & Obst.* 9, 3, xvi, 700. [191]

A year's work in hysterectomy. J. B. DE VRIES. *Am. J. M. Sc.* 9, 3, cxv, 459. [192]

The procedure of abdominal amputation in abdominal hysterectomy. RICHARD. *Gaz. d'hop. Par.* 9, 3, lxxvii, No. 37. [192]

A cradle suture for holding the uterus in ventro-suspension. H. I. OUDINOT. *North Am. J. Homoeop.* 9, 3, xii, 10. [192]

Operative treatment of acute intermenstrual metrorrhagia. G. C. MYNOUR and T. M. MASON. *Ned. Maandchr. f. Verh. en Verh. en Kindergeest.* 9, 3, 10, 45. [192]

Clinical demonstration of an operation for prolapse of the uterus complicated by hypertrophy of the cervix. W. L. FORRESTER. *Brit. M. J.* 9, 3, 70. [192]

Adnexal and Peritoneal Conditions

Influence of the ovary as an organ of internal secretion. W. P. G. AN. *Am. J. Obst. & Gyn.* 9, 3, lviii, 640. [193]

Relation of pseudosarcoma of ovary and peritonitis to the appendix. BOVEN. *Maandchr. f. Geb.* Gynaek. 9, 3, xxxvii, 500. [193]

Three cases of metastatic sarcoma of both ovaries. FARRIS and H. L. PROVINC. *Med. Par.* 9, 3, xvi, 1. [193]

Sarcomatous degeneration of fibrous cysts of the ovary. DORRANCE. *Maandchr. f. Gebortsh. Gynaek.* 9, 3, xxxvii, 40. [193]

Four cases of torsion of the pedicle of cysts of the ovary. DORRANCE. *J. d. sc. m. d. de Lille.* 9, 3, xxxvii, 1. [193]

Voluminous cyst of the parovarium of the retroperitoneal type. GUTHRIE. *WALLACE and MORGAN. Mat. the m. d.* 1913, 4, No. 6. [193]

Tuberculosis of the adnexa. MACQUART. *J. d. sc. m. d. de Lille.* 9, 3, xxxvii, No. 4. [193]

The significance of tuberculous lesions in operative prostates of tuberculous of the adnexa (in particular lesions of the small intestine). DESGOUTTES and OLIVIER. *Lyon m. d.*, 9, 3, cxv, 54. [193]

Inflammatory affection of the adnexa, exclusive of parovarian peritonitis. FALLOUX. *Gynaek. Rundschau*, Berl. 9, 3, vii, No. 7 and 8. [193]

Infection of Fallopian tube. J. C. CALHOUN. *Missouri M. J.* 9, 3, xlviii, 274. [193]

Placental carcinoma of subperitoneal chorio-epithelioma of the tube. BARY. *Ann. de gynec. et d'obst. Par.* 9, 3, 2, 1. [193]

(old) because of the tube and papillary tuberculous of

the tubal mucous membrane. MERRY. *Ill. Gynecology*, Napoli, 9, 3, ix, No. 1. [193]

Tubal reimplantation, new conservative operation for sterilization of women. G. DE TARNOWSKY. *J. Am. M. Ass.* 9, 3, ix, 21. [193]

Metastatic sarcoma of the broad ligament associated with fibrosarcoma of the uterus. LARSEN. *Bull. Acad. roy. de m. d. de Belgique*, 9, 3, xxxvii, 3. [193]

Some old pelvic inflammatory diseases, their pathological treatment with report of cases. MCGOWAN. *J. Am. M. Ass.* 9, 3, ix, 966. [194]

A new operation for the sterilization of women which leaves the possibility of subsequent restoration of fertility. BLOMMAERT. *Bull. Klin. Weidener* 9, 3, l, 4. [194]

A new method of shortening the round ligaments. S. FRIEDMAN. *J. Am. M. Ass.* 9, 3, ix, 912. [194]

Contribution to the etiology of persistent retro-uterine excretion. OUDINOT. *Maandchr. f. Geb.* Gynaek. 9, 3, xxxvii, 520. [194]

Pelvic cellulitis. F. TAYLOR. *J. Lancet*, 9, 3, xxxviii, 91. [194]

External Genitalia

Mycosis of the vulva. DREXEL. *Zentralbl. f. Gynaek.* 9, 3, xxxvii, 540. [194]

Hyperkeratosis of the agria associated with psoriasis. LARRY. *Homoeop. m. d.* Dijon, 9, 3, xii, No. 3. [194]

Vesico-vaginal fistula. M. VILLAIN. *Progr. m. d.*, Par. 9, 3, xii, No. 3. [194]

The operative difficulties of vesico-vaginal fistula. LARSEN. *Clasp.*, Par. 9, 3, ix, 1. [194]

Complete absence of the vagina. Kermanshah and hematomatous. BARNARD. *Gynecology*, Milano, 9, 3, ix, No. 1. [194]

Creation of new vagina with report of case of transplantation of the small intestine into the vagina. BARNARD. *Bull. Acad. roy. de m. d. de Belg.* 9, 3, xxxvii, 39. [194]

The employment of the small intestine for the creation of a new vagina. QUÉNU. *Bull. et m. d. Soc. de chir. de Par.* 9, 3, 403. [194]

Artificial vagina. Review of the various operative procedures for correcting transverse vagina. G. B. MARRAS. *J. Obst. & Gynec. Brit. Emp.* 9, 3, xxxii, 91. [194]

Vaginal surgery. S. W. BARNARD. *N. Y. M. J.* 9, 3, xxxvii, 197. [194]

Examination of the pelvic organs in doubtful cases through vaginal mirror. HENRY ROSE. *Cleveland M. J.* 19, 3, xii, 300. [194]

Obstructive vaginitis treated by cocaine. G. FRIEDMAN. *Med. Press & Circ.* 3, cxvii, 353. [194]

The above and unconsidered employment of cocaine for vaginal irrigation in gynecology. LARSEN. *Gynecology*, Par. 9, 3, xxxvii, No. 3. [194]

Treatment of leucorrhoea. GEORGE KATZ. *Bull. Klin. Weidener* 9, 3, l, 700. [194]

An operation for the cure of agria. H. A. LORRISON. *Boston M. & S. J.* 3, cxviii, 578. [195]

A new case of posterior labial hernia. Par. Gynaek. Rundschau, 9, 3, vii, No. 8. [195]

Contribution to the study of primary carcinoma of the vulva. SAUER. *Ann. d'obst. gynecol.* 9, 3, xxxv, 35. [195]

Melanotic sarcoma of the clitoris. VOUT. *Arch. f. Gynaek.* 9, 3, xxxv, No. 6. [195]

Observations on the preservation and repair of the female perineum. S. J. GOODMAN. *Am. J. Obst. & Gyn.* 9, 3, lviii, 154. [195]

Large epithelial carcinoma in girl of 9 years preliminary note with summary of the subject. C. A. BROWN. *J. Am. M. Ass.* 9, 3, ix, 261. [195]

Miscellaneous

- Foreign bodies in the female bladder. SIMON. *Ztschr f. gynäk. Urol., Leipzig*, 9 3 iv, 262.
- Invasion of the bladder by pessary after Schauta Wertheim operation for prolapse. W. STROUSS. *Ztschr f. gynäk. Urol. Leipzig*, 9 3, iv, 38.
- Bladder diseases in inflammatory affections of the uterus. HAIN. *Ztschr f. gynäk. Urol., Leipzig*, 9 3 i, 2.
- Management of chronic cystitis in the female. T. J. STROTT. *J. Ark. M. Soc.*, 9 3 ix, 264.
- Tuberculosis of the urinary system in women. E. H. RICHARDSON. *Bull. Johns Hopkins Hosp.*, 9 3 xiv, 3.
- Extra-vascular anastomoses of the uterus in women. HARTMAN. *Ztschr f. gynäk. Urol. Leipzig*, 9 3, iv, 2.
- Some problems in gynecological diagnosis. N. S. BETTE. *Hahnemann Month.*, 9 3, xiv, 200.
- The etiology of gynaecitis. F. KRAMER. *Beitr. Geburtsh. Gynäk.*, 9 3 xvi, 87. [195]
- Bacteriological examinations in gynecological diseases. E. SCHOLL and W. KOLBE. *Zentralbl. f. Gynäk.*, 9 3, xiv, 60.
- Genital functions of the ductless glands in the female. W. BLAIR BELL. *Lancet Lond.*, 9 3, dec. 9, 137. 800. [196]
- The prognostic value of the leucocyte count in pelvic inflammatory conditions. JOSEPH T. SMITH. *Surg. Gynec. & Obst.*, 9 3 ix, 403. [197]
- The appendix and the female genitalia. BOGDANOVIC. *Beitr. klin. Chir.*, 9 3 lxxv, No. 1.
- Reflex pains on pressure of coeliac plexus in inflammation of female genitalia. ALTMANN. *Zentralbl. f. Gynäk.*, 9 3, xiv, 340. [197]
- The bacteriological control of asepsis in gynecological laparotomies. STEWART. *Arch. f. Gynäk. Berl.*, 9 3, xix, No. 1.

- Enlargement of the liver during menstruation. DEBAIL. *Arch. Vrach. Gien, St. Petersburg*, 19 3, x, 430. [197]
- Multiple primary carcinomata of the female genitalia. HAYES. *Arch. f. Gynäk., Berl.*, 9 3 xix, No. 1.
- Thrombosis and embolism following gynecological operations. WICKERT. *Beitr. z. klin. Chir.*, 9 3 lxxv, No. 1.
- Thioperin in gynecological treatment. A. HIRSCHBERG. *Berl. klin. Wchschr.*, 9 3 i, 397. [197]
- Synthetic hydrazin-Bayer, substitute for fluid extract hydrazin canadensis. H. WALTHER. *München. med. Wchschr.*, 9 3, ix, 604.
- Technique and pathology of gynecological roentgenotherapy. SCHWARTZ. *Gynäk. Rundschau, Berl.*, 9 3 vii, No. 2.
- Experiences, results and technique of gynecologic X-ray treatment. F. O. HANSEN. *Fortachr. a. d. Geb. d. Röntgenstr.*, 9 3, x, 2.
- The therapeutic use of X-rays in gynecology. P. HANSEN. *Strahlentherap.*, 9 3 ii, 2.
- X-ray treatment in gynecology. H. F. B. ULL. *Ned. Maaschr. Verh. en Verw. en Kindergeheel.*, 9 3, 17.
- X-ray treatment in gynecology. J. MÜLLER. *Berl. klin. Wchschr.*, 9 3, i, 560.
- X-ray treatment in gynecology. P. HELLMANN. *Monatschr. f. Geburtsh. Gynäk.*, 9 3, xiv, 35. [197]
- Importance of X-rays in gynecology and obstetrics. KROHN. *Deutsche med. Wchschr.*, 9 3, xix, 676.
- Röntgenotherapy in gynecology. LOUIS. *Gynäk. Rundschau, Berl.*, 9 3 vii, No. 7.
- The technique of Röntgen-ray gynaecology. FRANKEL. *Gynäk. Rundschau, Berl.*, 19 3, vii, No. 7.
- Helliotherapy in gynecology. ANDER. *Gynécologie Par.*, 9 3 xvi, 1.
- The influence of the social factor upon the origin of tumors. TERTULIAN. *Klin. u. exp. Lage*, 9 3, iii, 608. [196]

OBSTETRICS

Pregnancy and Its Complications

- Biologic diagnosis of pregnancy. E. ERNSTHOFER. *München. med. Wchschr.*, 9 3 ix, 537. [195]
- An uncontrollable vomiting of pregnancy treated by direct infusion of blood from a pregnant woman. VIGARI. *Lancet med. & Science*, 9 3, xix, No. 4.
- Influence of pregnancy on death-rate of tuberculous in the Netherlands. C. VAN THAMMEBOCK. *Nederl. geneesk. Ver. Streeksber.*, Feb. 9th, 9 3. [195]
- Fetal pregnancy. S. T. YEATES. *Am. M. J.*, 9 3 xi, 307.
- The influence of ectopic pregnancy on the blood supply of the uterus with special reference to uterine bleeding based on the study of 3 injected uteri associated with ectopic pregnancy. J. A. SAUNDERS. *T. Am. Gynec. Ass.*, 9 3 May. [195]
- Ectopic pregnancy occurring twice in the same patient. A. ALBERT. *Australas. M. Gaz.*, 9 3, xix, 232. [200]
- Ectopic gestation and intraperitoneal hemorrhage from ovarian cysts, mainly corpus luteum. H. REICHARD. *Gynäk. Rundschau, Berl.*, 9 3 vii, 201.

- Extra-uterine pregnancy; operation three months after term recovery. W. S. SMITH. *Am. J. Obst. N. Y.*, 9 3, lxxiv, 669.
- Repeated tubal pregnancies. HIRSCH. *Monatschr. f. Geburtsh. Gynäk., Berl.*, 9 3, xiv, No. 4.
- Tubal pregnancy before the fourth month. CROVALL. *Gynécologie, Par.*, 9 3, xvi, No. 2.
- A case of ruptured very early primary ovarian pregnancy. GROWER. *CHIRURG.*, Edinb. M. J., 9 3, x, 36. [201]
- A study on young ovarian pregnancies. P. COOT and DEBRIER. *Ann. de gynéc. et d'obst. Par.*, 9 3, x, No. 1.
- Interstitial pregnancy. SEIFERT. *Zentralbl. f. Gynäk.*, 19 3, xiv, 175.
- Bilateral ovariectomy during pregnancy. FUCHS. *Monatschr. f. Geb. Gynäk.*, 9 3, xiv, 55.
- Tumors of the ovary and pregnancy. FURCH and VALVIERE. *Echo méd. de Nord Lille*, 9 3 xvi, No. 12.
- Decomate uterus as an etiological factor in chronic transverse presentation. KLOPP. *Zentralbl. f. Gynäk. Leipzig*, 9 3, xiv, No. 3.

Intrauterine alacasia of the postperal uterus. A. H. HANDBURY. N. Y. M. J. 9 3, xlvii, 444. [204]
 Periparturient inversion of the uterus. ZAWOJENKOW. Deutsche med. Wochenschr. 9 3, xxxix, No. 6.

Miscellaneous

Head injuries of the new-born. D. G. WILCOX. Boston M. & S. J. 9 3, xlviii, 508. [204]

Physiology of the new-born, physiologic uterine haemorrhage of the new-born. S. K. GOORMAN. Pediatrics, 9 3, 4, 3.

Gra. Uterus of umbilical origin in new-born. FAIRBANK and BONNET. Providence med. Rev. 9 3, xxvi, No. 4.

Intra-uterine trauma in the new-born. C. C. VAN DER HEGDE. Ned. Maandchr. Verloos en Vroedz. en Kindergeen. 9 3, 4, 39.

About the irregularity in the decrease of nursing mortality according to days and months. HANSEN. Ztschr. f. Sauglingsch. 9 3, 9.

A case of developmental defect in the fetus. A. SERGIENKO. Russ. Monatsschr. f. Geburtsh. u. Gynak. 9 3, xxvii, 203.

A human embryo with chorda caudal. O. GROMER. Anat. Anz. 9 3, 21, 653.

A case of congenital spinal abdominal-genital and intestinal defect with duplication of the cecum and appendix. A. LAWE. Beitr. pathol. Anat. allg. Pathol. 9 3, iv, 575.

The origin of respiratory movements in the fetus. D. DUDER. Lekt. rothology 9 3, 4, 8.

The influence of the X rays on the fetal membranes. M. KA. ABOYE. Zentralbl. f. Gynak. 9 3, xxvii, 483.

Phosphorus of the human placenta. C. SAKARI. Biochem. Ztschr. 9 3, xlii, 57.

The passage of the products of degeneration of albumen from the mother to the child. G. BOGUS. Biochem. Ztschr. 9 3, xlii, 362.

The internal secretion of the mammary gland. SCHIFF. MAMA and VIT. VII. Wien. kl. Wochenschr. 9 3, xxv, 76. [204]

The significance of findings of streptococci in the vaginal secretion of women in labor. SACCS. Zentralbl. f. Gynak. 9 3, xxvii, N. 7.

Hysterism in abortions and its clinical and theoretical significance. C. ROMAN. Berl. klin. u. infekti. Wochenschr. 9 3, 4, 309. [204]

The excretion of amniotic ferments in the urine during the toxaemia of pregnancy. D. CONNERT. J. Obst. & G. med. Brit. Emp. 9 3, xxii, 7. [205]

Uterine formations of the pelvis observed in Uruguay. BILLINI. Hlaza. Rev. de l'hop. Montevideo, 9 3, 1, 1.

Remarks on Rottet's method of curing contracted pelvis. E. GROSSEVIERE. Zentralbl. f. Gynak. 9 3, xxvii, 409.

Serological study of pregnancy according to the method of Abderhalden. EAGALA. V. Med. Klin. 9 3, li, 476.

Demonstrations of Abderhalden's pregnancy reactions. JOSTAS. Deutsche med. Wochenschr. 9 3, xxxix, 677.

Abderhalden's biological test of pregnancy. WILLIAMS and PRAXER. Surg. Gynec. & Obst., 9 3, xvi, 41. [205]

Early experiments concerning the use of the Abderhalden reaction in obstetrics. C. DIER. Ann. d'obstet. gynecol. 9 3, xxv, 98.

Abderhalden's pregnancy diagnosis and its scientific aspect. HOSCHKEIN. Schweizer Rundsch. f. Med., 19 3, xlii, 534.

Diagnosis of pregnancy by the optic and the dialytic methods. FERTON and BRAUN. München. med. Wochenschr. 9 3, li, 685.

Hormonals in obstetrics by means of modification of Momburg's method. E. VAN EXEM. Clinique, Brux., 9 3, xxvii, 7. [205]

Deaths occurring after Momburg's haemostats and after lumbar anesthetics. SCHNEIDER. Med. Klin., 9 3, li, 66. [206]

Frank's subcutaneous symphysiotomy. KESTER. Arch. f. Gynak. Berl. 9 3, xlii, No. 2.

Sterility in the female, its etiology and treatment, with report of cases of instrumental impregnation. E. M. DO. Am. Med. 9 3, xix, 4. [206]

Mitosis as an aid to expulsion, especially in the treatment of placenta previa. E. HADOU and L. MISTRE. Gynak. Rundschau, 9 3, vii, 32. [207]

Hydrazine-morphine and pituitrin in parturition. W. L. KNOTT. South African M. Rev. 9 3, xi, 89. [207]

Treatment of urinary retention with pituitrin. I. ESKER. Ztschr. f. Gynak. Urol. 19 3, 55. [207]

The clinical value of the combination of adrenalin and hypophysis. B. A. HORN. Wien. klin. Wochenschr. 9 3, xxvi, 430.

The clinical action of electrargol. F. DARTS. Zentralbl. f. Gynak., 9 3, xxvii, 389. [207]

Organotherapy by extracts of the suprarenal glands in obstetrics. ZAWOJENKOW. Morgagn., 9 3, 1, 54.

Pantopon. O. on. BOLSINGER. Abhandl. u. d. Geb. d. prakt. Med. 191., xii, 93. [208]

Method of non-ligation of the umbilical cord. A. N. RACHNAROFF. Monatsschr. f. Geburtsh. Gynak. 9 3, xxvii, 499. [208]

Demonstration of fetus with solid embryonic of coccyx. ATTILIO. München. med. Wochenschr. 9 3, li, 697.

A new obstetrical forceps. E. McDONALD. Am. Med., 9 3, xix, 63. [208]

History of obstetrical forceps. A. J. KILPATRICK. J. M. Am. Soc. 9 3, 4, 357.

On the action of hypophyseal extract. LIEBRY. Zentralbl. f. Gynak. 9 3, xxvii, 337. [208]

Obstetrical surgery. T. B. COOLIDGE. J. Ohio St. M. Ass. 9 3, 50.

Forensic obstetrics. G. H. WASSERBERG. Ned. Maandchr. Verloos en Vroedz. en Kindergeen., 9 3, 4, 26.

GENITO URINARY SURGERY

Kidney and Ureter

The relation between chromaffin substance and adrenalin to the suprarenal capsules. W O. NOWICKI. *Prægt. chir. glück.*, 913, viii, 60.

Radiodiagnostics of pseudo-calculi of the kidney. POTTEN. *Arch. d'électr. méd.*, Bordeaux, 9 3, xii, No. 354.

The bacteriology and bacteriotherapy of renal calculus and its sequelae. A. P. OENMACHER. *J. Am. M. Ass.*, 9 3, ix, 2.

Unilateral kidney calculus complicated by arteriole of the opposite side. B. S. BARRINGER. *Intern. M. J.*, 913, ix, 343.

Hydrophosphorosis associated with calculi almost complete congenital absence of the kidney. MARION. *J. d'Urol.*, Par. 9 3, ix, No. 4.

Conservative surgical method in operating for stone in the kidney. W. E. LOWRY. *Cleveland M. J.*, 9 3, xii, 160.

Pyelotomy for the removal of renal calculus. D. N. EISENBERG. *J. Am. M. Ass.*, 9 3, ix, 45.

Indications for pyelotomy for renal lithiasis. C. TROUSSEAU. *Scapier et Litte. méd.*, 9 3, ix, 700.

Gross kidney lesions with vesical symptoms only. H. A. FOWLER. *M. Sem.-Month.*, 9 3, xviii, 30.

Flouring kidney uncontrollable vomiting and exaggerated emaciation. MURRO. *Gac. d. Sur. de España*, 19 3, xxxi, 75.

The embryogenetic relationships of tumors of the kidney suprarenal, and testicle. L. B. WILSON. *Ann. Surg.*, Phila. 9 3, ix, 5.

Three unusual cases of renal tumor with discussion of the operant treatment of the condition. J. S. JOLLY. *Proc. Roy. Soc. Med.*, 9 3, vi, 80.

Serous cysts of the kidney. BLANCHARD. *Gac. méd. de Nantes*, 9 3, xxxi, No. 3.

Polycystic kidney nephrectomy cure of four and one-half years standing. DIMONTE and OLIVER. *Lyon chir.*, 1913, ix, 45.

Tuberculosis of the kidney. D. N. EISENBERG. *Intern. M. J.*, 913, ix, 309.

Tuberculosis of the kidney. P. A. BERGHEIM. *Louis M. J.*, 913, xvi, 302.

A new method for the diagnosis of renal tuberculosis. BURROUGHS. *J. d'Urol.*, Par. 9 3, ix, No. 4.

Diagnosis and treatment of bilateral renal tuberculosis. PIERRE. *Rev. méd. de la Seine*, Paris, 9 3, xxxii, No. 4.

Common ocular changes in nephritis. E. M. ALLEN. *Post. Graduate*, 9 3, xviii, 232.

The prognosis in nephritis. STRACH. *Zsch. f. Urol.*, 9 3, vii, No. 5.

Symptoms of intestinal occlusion in nephritis case. QUILTY. *Bull. méd.*, 9 3, xviii, 207.

A case of tuberculous infection. VAN ALPHENHOOF. *Ned. Maandchr. Verh. en Versl. en Kinder-geneesk.*, 9 3, ix, 54.

Intermittent pyuria due to infection of the prostatic utricle. A. J. UNDERHILL. *J. Am. M. Ass.*, 19 3, ix, 712.

Dilatation and infection of the renal pelvis. F. VOLZGANG. *Zsch. f. Urol. Chir. Leipz.*, 9 3, I.

A case of pyelography in which collapsed penetrated into the ureteral tubules and the Malpighian bodies of the

kidney. ARABIAN THOM. *Hygiea*, Stockholm, 9 3, lxxv, 70.

Unilateral renal hematuria cured by pelvic injections of adrenalin. J. R. CATTLE. *Lancet*, M. J., 9 3, ix, 218.

Anatomical and functional diagnosis of renal affection. LOCARELLI. *Clin. chir. Milano*, 9 3, xii, No. 2.

The effect of successive ligation of the renal arteries on the nitrogen balance. J. D. PIERCE. *Cleveland M. J.*, 19 3, xii, 240.

Autopsy of the tissues of nephrectomized animals. FENELL. *J. de physiol. et de path. gén.*, Par. 9 3, xv, No. 2.

The future of the nephrectomized. POCOCK. *Am. J. Urol.*, 913, ix, 3.

The technique and results of lateral (paraperitoneal) nephrectomy. A. MEXOT. *Am. J. Urol.*, 9 3, ix, 177.

Ligation of the renal artery and vein as substitute for nephrectomy. T. H. KIMLOCK. *Proc. Roy. Soc. Med.*, 9 3, vi, 70.

Nephrectomy for polyuric condition of the kidney. G. TORRACCI. *Am. J. Obst. N. Y.*, 9 3, lxxv, 190.

Presentations concerning renal surgery. ISAKI. *Zsch. f. Urol.*, 913, vii, No. 5.

Some aspects of renal surgery. RAMON OTTELLA. *Canad. Pract. & Rev.*, 9 3, xxxvii, 9.

General remarks on the diagnosis of surgical diseases of the kidney. G. P. GOSWAMI. *Ky. M. J.*, 9 3, xi, 253.

The surgery of the simple and bonyon kidney. C. H. M. O. *Ann. Surg.*, Phila., 9 3, lxxv, 51.

Is decapsulation of the kidneys for chronic Bright's disease justifiable? S. LLOYD. *Post-Graduate*, 9 3, xviii, 232.

The renal function after decapsulation. L. PIERRE. *J. de physiol. et de path. gén.*, Par. 9 3, xv, No. 2.

Notes on functional examination of the kidney. SCHLAYER. *Monatsh. med. Wissen.*, 913, ix, 800.

Phenobarbital as determinants of kidney function. H. K. BOWEN. *J. Indiana St. M. Ass.*, 9 3, I, 54.

A method of classification, diagnosis and therapy of kidney disorders, based on functional testing. H. E. BARNETT. *Med. Rec.*, 9 3, lxxviii, 600.

Some clinical observations on Aubard method. PIERARD. *Arch. prov. de chir.*, Par. 9 3, xii, No. 2.

Two clinical lectures on calculus in the upper urinary tract. J. J. STWARD. *Clin. J.*, 9 3, xii, 400.

Impacted ureteral calculi. BORRERO. *Beitr. z. Klin. Chir.*, 19 3, lxxvii, No. 4.

Surgical treatment of calculi of the pelvic ureter. LANGE. *J. d'Urol.*, Par. 9 3, ix, No. 4.

Calculus of the intra-peritoneal portion of the ureter. PARCIVAL. *J. d'Urol.*, Par. 9 3, ix, No. 4.

The modern treatment of ruptures of the ureter. MARROW. *J. d'Urol.*, Par. 9 3, ix, No. 4.

Accessory ureters. A. P. WILSON. *Deutsche Zsch. f. Chir.*, 9 3, cxii, 425.

Radiographic exploration of the ureter and the accessory hollow viscera after section of opaque structures. THURGOOD. *Provincia. med.*, Par., 913, cxvi, No. 14.

Recent progress in ureteropyelography. W. F. BRADLEY. *J. Mich. St. M. Soc.*, 19 3, ix, 80.

Technique of circular ureterostomy. FROST and BROWER. *J. de Chir.*, 913, x, 47.

Urethral catheter diagnosis and therapy. H. K. BOON. *Indianapolis M. J.* 913, xvi, 37. [218]
 Urethral catheterization from the therapeutic point of view. Considerations on the diagnosis and prognosis of renal tuberculosis. NOGUEIRA. *Rev. de l. hosp. Montevideo*, 91. No. 2.

Bladder Urethra and Penis

Intravital diagnosis and treatment. L. BUNZON. *N. Y. M. J.* 912, xvii, 857.
 Observations of vesical calculus. L. SEXTON. *New Orleans M. & S. J.* 93, lxxv, 744.
 Vesical calculus producing protrusion into the rectum. GONZALEZ. *Bull. méd. de Algérie, Alger* 913 xlv No. 6.
 A case of an unusual form of vesical stone attached to foreign body. G. W. MALL. *Ztschr. f. gynäk. Urol., Leipzig*, 193, iv, 89.
 A rare case of large vesical diverticulum, packed with calculi. NOGUEIRA and RODRIGUEZ. *J. d'urolog. Par.* 93, xl, N. 4.
 Foreign bodies in the male bladder. W. C. BRADY. *Pittsburgh M. J.* 93, 4, 5.
 The male bladder changes in form and position from infancy to old age. F. R. WERNER. *J. Lancet*, 93, xxxix, 96.
 Hernias of the bladder. CARPONYSKI. *Beitr. klin. Chir.* 193, lxxv, N.
 Once more my suggestion of modification of the procedure of Cusco-Haist-Boyer and Hovelaque for the cure of vesical ectopy. FRANCOIS LARSEN. *Arch. ital. di ginec.* 93, xvi, 43.
 Vesical ectopy: plastic surgery of the bladder and the urethra. J. KOLLEKOWICZ. *Progr. chir. f. ginec.* 193, vii, 222.
 Treatment of urinary fistulae by operation after Marion method, consisting in derivation of the urine. PUJOS. *Cronica med. Valencia*, 93, xxv, 80.
 Fulgurization treatment of bladder tumors. HIRSHMAN L. KATZBERGER. *Illinois M. J.* 1913, xxi, 3, 3.
 A case of malignant tumor of the bladder of syncytial structure. BLANCHER and MARTIN. *Ztschr. f. Urol.* 93, vii, N. 5.
 Vesical tumors among workmen employed in anthracite mines. LITVIN. *Ztschr. f. Urol.* 93, vii, N. 5.
 The pathology and treatment of callosal ulcer of the bladder. L. BUNZON. *Med. Rec.* 93, lxxviii, 456. [219]
 Cysts of the bladder. HORTNYER. *Folia urol., Leipzig*, 93, xl, N. 7.
 Tuberculosis of the bladder and prostate. W. H. REEDERMAN. *Iowa M. J.* 912, xix, 409.
 Chronic cystitis and retention of urine; treatment by drainage and its beneficial effect upon damaged kidneys. D. W. NEWELL. *Practitioner Lond.* 93, xc, 672. [219]
 Operative treatment of unyielding cystitis, vesical cartilage and temporary fistula. UNGERSTAD. *Beitr. z. klin. Chir.* 93, lxxv, No.
 Therapeutic fistulization of the bladder. LOURNAU. *J. de méd. de Bordeaux*, 93, xlii, No. 7.
 Cystoscopy from 1906 to 1912. JACOB. *Folia urol., Leipzig* 93, vii, No. 7.
 Suprapubic cystostomy. CHURTON. *N. Y. M. J.* 93, xvii, 646. [220]
 Chemical contribution to the employment of cystoscopy for the restoration of vesical function. CARMELO FERRAO. *Pedicon, Roma*, 93, xi, 209.
 Permeability and absorbent power of the bladder. KOTLOV and NOVICKA. *J. de physiol. et de path. gén., Par.* 913, xv, No.

Injection of gas into the bladder. FERRAZ. *J. d'urolog. Par.* 93, lii, No. 4.
 A case of ectopy of the bladder treated by the operation of Haist-Boyer. Hovelaque. GONZALEZ. *Bull. et mémoires. Soc. de chir. de Par.* 193, xxxix, 39. [219]
 Repair of defect of the urethra by the vermiform appendix. O. von ARMBURG. *Beitr. z. klin. Chir.* 93, lxxvii, 678.
 Complete rupture of the perineal urethra, operation in one stage. MARIANO. *Gaz. méd. de Pinarua, Amiens*, 93, xxxi, No. 4.
 Permanent results obtained by the various methods of treating stricture of the urethra. RASKAY. *Beitr. z. klin. Chir.* 93, lxxv, No. 1.
 Excision and suture in the treatment of dense, close, urethral strictures. L. G. CUNNINGHAM. *Ann. Surg. Phila.* 93, lvi, 556. [221]
 The proper lubricant and how to use it in urethral instrumentation. THOMAS. *M. P. of Med. Herald*, 93, xxxii, 149.
 Polyp of the urethra. UTEAU and SAINT MARTIN. *J. d'urolog. Par.* 93, lii, N. 4.
 Urethral and perineal stricture. V. C. PROSSER. *N. Y. M. J.* 93, xvii, 483. [221]
 Plastic surgery of the male urethra. S. KAJUTCHENKOW. *Chirurgia, St. Petersburg*, 93, xxxix, 45.
 Prolonged priapism and its surgical treatment. WORMS and ARABY. *Gaz. d. hôp., Par.* 193, lxxvii, No. 44.
 Gonococcal urethritis in boy aged seventeen months. A. SMITH and C. S. MCKEE. *Brit. M. J.* 93, i, 892.
 The treatment of gonorrheal and other infections with diglycyl bacterial extracts. J. O. HUNTERFELDER. *J. Am. M. Ass.* 93, ix, 66.
 Accutory clabs of the penis and gonorrheal affections of the penis. HOFMEIER. *Berl. klin. Wchnschr.* 93, i, N. 6.
 A new treatment for acute gonorrhea. O. L. MOUTON. *Med. Rec.* 93, lxxviii, 709.
 New diagnostic methods in gonorrheal affections. R. M. FARMSTEIN. *Med. Rundschau*, 193, xi, 5.
 Therapy of gonorrhea and its most frequent mistakes. FRANK VON VERMIS. *Dermatol. Wchnschr.* 93, lvi, 302.

Genital Organs

Epididymectomy: A plea for rational treatment of epididymitis. R. M. CUTLER. *Am. J. Urol.* 93, ix, 193. [222]
 Tubercular epididymitis and tuberculous testicle. G. M. MINORAN. *Iowa M. J.* 93, xix, 57.
 The latest experimental researches on the internal secretion of the testicle. HARMANO. *Pedicon, Roma*, 93, xi, No. 4.
 A case of torsion of the vas deferens in an inguinal ectopy of the testicle. PIERRE TASCIA. *Riforma med.* 93, xxx, 404.
 Torsion of the testicle. SCOTTICHIE. *Chirurgia*, 93, xxxii, 52.
 The surgical treatment of atopia testis. FISCHER. *Beitr. z. klin. Chir.* 93, lxxvii, No. 2.
 The pathology and diagnosis of malignant disease of the descended and undescended testicle. G. M. SCARFARI. *Am. J. Urol.*, 93, ix, 69.
 An unusual type of hydrocele. J. B. SQUIRE. *J. Am. M. Ass.* 93, ix, 58.
 Diagnostic hints for the examination of prostatic subjects. JOSEF ENGELHART. *Allg. Wchn. med. Ztg.* 93, lvi, 39.
 Tuberculosis of the prostate. GOTT. *Folia urol., Leipzig*, 93, vii, No. 7.

- Prostatic bacilli. J A D. Urol. & Gynec. Rev. 913, xvii, 63.
- Iodipin per dynam in prostaticitis. L. FACHEN. Masschen. med. Wchnsch. 9 3, ix, 65.
- The technique of hypoplastic prostatectomy: the employment of an enucleator Sengerall. Bismar. J d'urolog. Par., 9 3, ix, No 4.
- Prostatectomy. E. S. JORD. Surg. Gynec. & Obst., 9 3, lxi, 379.
- Prostatectomy. H A MOORE. South Pract. 9 3, xxvii, 64.
- Prostatectomy: suspension of the bladder. GEN. E. ANTONOVIC. Canad. M. J. 9 3, ix, 67. [222]
- Prostatectomy by composite method. A. E. ROCKLEY. Surg., Gynec. & Obst. 9 3, xvi, 444. [222]
- Pre- and post-operative treatment of prostatectomy. Wm N WISNARD. Lancet-Clin., 19 3, dx, 358. [222]
- Suprapubic prostatectomy: report of case. A. L. PARKSON. S. M. J. 9 3, ix, 33.
- The after-treatment of suprapubic prostatectomy. KOLBACH. Surg., Gynec. & Obst., 9 3, xvi, 332. [222]
- A series of 36 cases of total excision of the prostate performed during the two years. P. J. FLETCHER. Lancet, Lond., 9 3, dxviii, 8. [222]
- The operative treatment of prostatic hypertrophy. HUGH CAMOT. Lancet-Clin. 9 3, cix, 360. [220]

- The physical and intellectual changes after prostatectomy. LACROIX. Bull. med., Par. 19 3, xxvii, No. 33.
- Surgery of prostatic atrophy. POISSON. Ztschr. f. Urol., Leipzig. 9 3, vii, No 5.

Miscellaneous

- The colon bacillus in genito-urinary diseases. PIERCE. Tr. Am. Ass. Genito-Urth. Surg. 9 3, May. [225]
- Spontaneous gangrene of the genital organs in men and in women. SPILLMAN and BENTON. Paris med., 9 3, ii, 319.
- Pyrexia and the pyrexia. UTEAU and SAINT-MARTIN. Soc. med., Marseille, 9 3, No. 950.
- Uric acid calculi. WILLIAM V. POSTER. N. Y. M. J., 9 3, xxvii, 539.
- Sexual impotence in the male. V. BUCK. Am. J. Urol., 9 3, ix, 97.
- The legal bases of sterilization. ROSENFIELD. Vertel-jahrbuch. f. gerichtl. Med. 9 3, xiv, 160.
- Race and race in genito-urinary surgery. J. W. THOMSON. WALKER. Practitioner Lond. 913, xi, 701. [225]
- Modern urinary surgery: points for the practitioner. HARRY CURRIE. Practitioner Lond. 19 3, xi, 666.

SURGERY OF THE EYE AND EAR

Eye

- Traumatic encephaloma. DUTROT. Cor. Bl. f. schweiz. Arzte, 9 3, xliii, No. 3.
- Report of cases of injury to the eye. G. R. S. COOPER. Penn. M. J. 9 3, xvi, 566.
- Removal of steel from the eye. J. W. MCCOULL. Med. Sentinel, 9 3, xxi, 869.
- A piece of glass in the crystalline lens, its description of the eye three and half years after the accident. J. HERBERT CLAINBORNE. Ann. Ophth. 9 3, xxii, 240.
- Burn of eye-ball due to caustic contents of golf ball. L. W. CHAMBER. J. Am. M. Ass., 9 3, ix, 397.
- Cystic dilatation of the lachrymal sac; operation on nasal duct in the nose (West's operation). D. McKINNEY. Proc. Roy. Soc. Med. 9 3, vi, 02. [227]
- Surgery of the lachrymal ducts. WEST. Arch. f. Laryngol. Rhinol. Berl., 9 3, xxviii, No.
- The excision of the lachrymal sac. WRIGHT. Northwest Med. 9 3, xvi, 206. [227]
- Phlyctenular eye disease in children. JOHN ALLAN. Pediatrics, 9 3, xiv, 8.
- Report of case of congenital ptosis in both eyes relieved by the Mott operation. KIRKMAN. T. Am. Ophth. Soc., 9 3, May. [227]
- The treatment of congenital ptosis by repair of the levator palpebrae superioris with the rectus superioris. L. WICKREGE. Ann. de la soc. med.-chir. de L'Eppe, 19 3, li, 43.
- A case of congenital apron of the palpebral conjunctiva. H. H. THOMAS. Tr. Am. Ophth. Soc., 9 3, May. [227]
- Treatment of vesical conjunctivitis. A. BRA. Therap. Gaz. 9 3, xxviii, 247.

- Another case of gonorrheal conjunctivitis aborted by two per cent solution of nitrate of silver. J. H. CLARKSON. N. Y. St. J. Med. 19 3, xii.
- Radium treatment in tumor of the orbit. C. F. CLARK. Ohio St. M. J. 9 3, ix, 71. [226]
- Carcinoma about the eye. E. H. BENTON. J. Mo. St. M. Ass., 9 3, ix, 33.
- Epibulbar carcinoma: histological examination of the specimen. DR. SCHWARTZ and SETHUR. T. Am. Ophth. Soc. 9 3, May. [226]
- Concerning two cases of dermoid at the sclerocorneal margin. BRETHER CHAMBER. Ann. Ophth., 9 3, xxi, 268.
- A case of multiple double hypodermoids of the conjunctiva and cornea, accompanied by intrabulbar and other anomalies. K. L. STOLL. Lancet-Clin., 9 3, dx, 363.
- Corneal abrasion. C. J. STALL. Ohio St. M. J., 913, lvi, 66. [226]
- Degeneration of the cornea of man and adult dog. B. CHAMBER. T. Am. Ophth. Soc. 19 3, May. [226]
- Two cases of corneal cornea with cataract. HANCOCK. T. Am. Ophth. Soc., 913, May. [226]
- Control of the eye in cataract operations. F. W. SCHWARTZ. Ophth. Rev. 9 3, xxvii, 05. [226]
- A method of dealing with the capsule after cataract operations. D. F. BENTON. Ophth. Rec. 9 3, xxi, 84. [226]
- Cataract and the Smith operation. P. B. WOOD. Northwest Med. 913, 05.
- The intracapsular cataract operation from the viewpoint of an ophthalmologist. J. W. MILLER. Ohio St. M. J. 1913, lx, 75. [226]
- Death after cataract operation. EDWARD J. BENTON. Ann. Ophth. 9 3, xxi, 260.

Sarcoma of the choroid, not demonstrable by the ordinary transilluminator. A. GREENWOOD. T. Am. Ophth. Soc., 9 3, May. [238]

Two cases of chronic glaucoma simplex treated by iridectomy. HARRINGTON. T. Am. Ophth. Soc., 9 3, May. [238]

Orbital cellulitis, fatal case following disease of the accessory sinuses of the nose. WYLER. N. Y. M. J., 9 3, April, 866. [238]

Traumatic posterior leucocoria. J. HEDGECOCK FURBER. Ophth. Rev. 9 3, April, 97. [237]

The successful proof of the intra-ocular fluid current based on the principle of mechanical adaptability. J. KOSCHKE. Ann. Ophth., 9 3, April, 2. [237]

The deflection results in the experimental findings regarding the fluent current of the eye. J. KOSCHKE. Ann. Ophth. 9 3, April, 3. [237]

Some notes of visual disturbances due to diseases of the nasal accessory cavities. H. MOULTON. Ann. Ophth., 9 3, April, 55. [237]

The significance of pupillary inequality. J. M. ROBERTS. J. Lancet, 9 3, April, 304. [237]

EAR

The significance of pain in the ear. M. J. AUSTLEY. Clin. J. 9 3, April, 4. [237]

Bacteriology of the ear. E. M. WEAVER. Ohio St. M. J. 9 3, April, 73. [237]

Upon the present status of otosclerosis. ALFRED DENNIS. Ann. Otol. Rhinol. & Laryngol. 9 3, April. [237]

The loss of hearing in one ear from injury. J. H. BARNES. Ohio St. M. J. 9 3, April, 406. [237]

Case of epithelioma of the tongue and cervical glands; removal of tumor and glands. N. PATTERSON. Lancet, Lond. 9 3, April, 96. [237]

Tumors of the acustics. J. BERLINER and VON SCHNIG. Monatsch. f. Ohrenh. Laryngol.-Rhinol. Berl. 9 3, April, 43. [237]

Otitis of twenty years standing cured by surgery and Wright vaccine. LABOURE. Rev. heb. de laryngol. d'otol. et de rhinol., Bordeaux. 9 3, April, 18. [237]

The importance of early recognition of capsulated cocci in acute otitis. F. E. CUTLER. Phys. & Surg. 9 3, April, 54. [237]

Some practical points in the diagnosis and treatment of acute and chronic nasal suppuration and their sequelae. JAS. F. MCKINNEY. Buffalo M. J. 9 3, April, 513. [237]

Acute suppuration of the middle ear—its neglect and proper treatment. GUYTON ALEXANDER. Ann. Otol. Rhinol. & Laryngol. 19 3, April, 59. [237]

Acute otitis media recognition and treatment by the general practitioner. G. C. KENNEDY. Pittsburgh M. J. 9 3, April, 3. [237]

Early puncture in acute suppurative otitis. R. I. LLOYD. J. Ophth., Otol. & Laryngol., 9 3, April, 30. [237]

The structure of the mastoid and the development of the mastoid cells: the influence of the constitution of the mastoid on the development of retrocellular suppuration. MOORE. Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx, Par. 9 3, April, No. 2. [237]

The protective mastoid operation. W. S. BRYANT. T. Am. Otol. Soc. 9 3, May. [237]

Exposure and commitment of the stic, combined with modified blood clot as factors in promoting rapid mastoid healing. BLACKWELL. T. Am. Otol. Soc. 9 3, May. [237]

A skull trephined for mastoid caries and lateral sinus thrombosis. B. A. RANDALL. T. Am. Otol. Soc. 9 3, May. [237]

The history of the mastoid operation. SCHWENKLOW. Ztschr. f. Ohrenh. u. f. Kranh. d. Luftwege, 9 3, April, N. [237]

When to operate on the labyrinth in labyrinth infection secondary to purulent otitis media. G. E. SHUMWAY. T. Am. Otol. Soc. 9 3, May. [237]

Labyrinthitis. A. ANGELL. North Am. J. Homoeop., 9 3, April, 2. [237]

Indications for and results of operative treatment of otitic meningitis. E. W. D. V. Surg. Gynec. & Obst., 9 3, April, 360. [237]

Report of three cases of otitic meningitis, treated by drainage of the dexter magna. DREW. T. Am. Otol. Soc. 9 3, May. [237]

Etiology, symptomatology and operative treatment of brain abscesses developing from suppuration of the middle ear. UPPARLEY. Beitr. klin. Chir. 9 3, April, No. 2. [237]

Radical operation on the ear: its technique and after treatment, with contribution on perichondritis of the auricle. KULVERSMITH. Beitr. klin. Chir. 9 3, April, N. 3. [237]

SURGERY OF THE NOSE, THROAT AND MOUTH

Operative treatment of adhesions of the wings of the nose. DANCE. Arch. f. Laryngol. Rhinol. Leipz. 19 3, April, N. [237]

The balsamoid iodine treatment of lupus nasal. P. W. BARNES. Brit. M. J. 9 3, April, 707. [237]

Cysts in the region of the vestibule of the nose. BLUMENFELD. Ztschr. f. Ohrenh. u. f. Kranh. d. Luftwege. Weib. 9 3, April, N. [237]

Correction of deformities of the nose by intranasal operations and prosthetic incisions. GAREL and GLOUX. Lyon med. 9 3, April, N. 14. [237]

The causes of perforation of the nasal septum. W. B. CHAMBERLIN. Ohio St. M. J. 9 3, April, 89. [237]

Reorganization of the cartilage of the nasal septum after the submucous resection of the latter. SCHWARTZ. [237]

Ztschr. f. Laryngol. Rhinol. u. f. Grengeb. Weib. 9 3, April, N. [237]

Acute foreign bodies in the nasal fossae. C. C. MAYER. Pediatrics, 9 3, April, 31. [237]

Nasal hemorrhage following turbinectomy in hemophilic treated by the injection of human blood serum. LINS. EMMONS. Ann. Otol. Rhinol. & Laryngol., 19 3, April, 113. [237]

Sphero-choanal polyp. KONO. Arch. f. Laryngol. u. Rhinol., Leipz., 19 3, April, No. 2. [237]

Primary malignant tumors of the nasal cavity and the accessory sinuses. SAYRE. Beitr. klin. Chir. 9 3, April, N. 2. [237]

Development of the accessory sinuses of the nose. VITTOREO NICOLAI. Arch. Ital. di otol., rhinol. laryngol. 9 3, April, 89. [237]

Stenosis. C. Zoon. J Kansas M. Soc., 9 3, xlii, 57.
Abscess-producing separation of the frontal sinus.
LAW. Beitr. z. klin. Chir., 1913, lxxv, No. 4.

Further observations on some anatomical and clinical relations of the sphenoid sinus to the cavernous sinus and the third, fourth, fifth, sixth and vidian nerves. G. SLOVIC.
Tr. Am. Laryngol. Ass., 9 3, May (1913)

The exploratory opening of the sphenoid sinus. C. P. GRAYSON. Penn. M. J. 9 3, xvi, 358

Treatment of suppurating affections of the accessory sinuses of the nose. A. von KUN MÜLLER. St. Petersburg. med. Zhisch. 9 3, xxviii, 43.

Two cases of air embolus following exploratory puncture of the sinuses of Highmore. H. M. BOWEN. Ann. Otol. Rhinol. & Laryngol. 9 3, xiii, 80

The treatment of supuration of the antrum of Highmore. E. B. GILKESON. Penn. M. J. 9 3, xvi, 554

A skull with malformation of the temporal bone and distortion and absorption of the basilar region as it by pressure of naso-pharyngeal growth. B. A. RABALL. T. Am. Laryngol. Ass. 9 3, May (1913)

The value of naso-pharyngeal surgery in the treatment of chronic craniethal otitis media. H. O. REED. T. Am. Otol. Soc. 9 3, May (1913)

On the function of the tonsils. LOUIS M. FREEMAN. Ann. Otol. Rhinol. & Laryngol. 9 3, xiii, 85.

The faucial tonsils as a focus for systemic infection. G. E. SEABROOK. T. Am. Laryngol. Ass. 9 3, May (1913)

Tuberculosis of the pharyngeal tonsil in the adult. BIRKENMEIER. Zhisch. f. Ohrenh. u. f. d. Kinnh. d. Lohrege, 9 3, lxxvii, N. 1.

The results of tonsillectomy. B. D. SANCHEZ. Med. Rec. 9 3, lxxviii, 654

The results in series of cases of tonsillectomy three to four years after operation. J. P. CLARK. T. Am. Laryngol. Ass. 9 3, May (1913)

Excision of tonsils and removal of adenoids under gas anaesthesia. J. F. O'MALLY. Brit. M. J. 9 3, i, 669 (1913)

Experiences with tonsillectomies performed by means of Aurbach-Roth's expression. ALFRED LEBRON. Arch. f. Laryngol. Rhinol., Berl., 9 3, xlviii, 340.

Tonsillectomy with consideration of new procedure after Klapp. RICHARD SCHREINER. Therap. d. Gegenwart. 9 3, lv, 145

The control of hemorrhages following surgical intervention on the tonsils and the larynx. AUGUSTUS RUTHER. Arch. f. Laryngol. Rhinol., Berl. 9 3, xlviii, 357

The control of secondary hemorrhages after surgical interventions on tonsils and larynx. RUTHER. Arch. f. Laryngol. Rhinol. Berl., 9 3, xlviii, No. 2.

Adhesions of uvula and soft palate to posterior pharyngeal wall in. J. L. SPED. 2. DORVILLE. Proc. Roy. Soc. Med., 19 3, vi, 8 (1913)

Ablation of adenoid vegetations, operative technique. VALLETTA. J. d. sc. med. de Lille, 9 3, xxvii, No. 3.

Certain dangers of the adenoid operation. W. E. GROVE. Bull. Johns Hopkins Hosp. 1913, xlv (1913)

Hypopharyngoscopy. RICHARD MONTAUD. Presse eto. Laryngol. Belg., 9 3, xlii.

Present-day examination of the larynx. BOUVER. Arch. med.-chir. de Province, Poitiers, 19 3, viii, No. 3.

Direct endoscopic examination of the larynx, trachea, and bronchi; technique, indications and results. C. BURTON. Thèse de doct., Montpellier 19 3 (1913)

Acute diffuse swelling of the mucous membrane of the larynx, provoked by treatment irritation by foreign body. MÖLLER. Zhisch. f. Ohrenh. u. f. d. Kinnh. d. Lohrege, 9 3, lxxvii, No. 1.

Tumors of the larynx. ROBERT LEVY. Ann. Otol. Rhinol. & Laryngol. 9 3, xiii, 85.

Tuberculosis of the larynx. W. S. VORONOV. Brit. M. J. 19 3, i, 703 (1913)

Carcinoma of the larynx on basic basis. PAUL LEBRON. Zhisch. f. Ohrenh. u. f. d. Kinnh. d. Lohrege, 9 3, lxxvii, 80

End-results in two cases of carcinoma of the larynx which were treated by early external conservative operation. VIKTOR CATELLANI. Zhisch. f. Laryngol. Rhinol. f. Göttingen 19 3, vi, No.

Operation on the larynx by the direct path of access. POLLATSCHEK. Beitr. klin. Chir. 19 3, lxxv, No. 2.

Pyorrhea alveolaris. R. H. WALKER. Va. M. Semi-Month. 9 3, xviii, 43

Pyorrhea alveolaris. S. W. BROWN. Va. M. Semi-Month. 19 3, xviii, 40.

Adenoma of the mouth. H. MARX. Zhisch. f. Ohrenh. u. f. d. Kinnh. d. Lohrege, 9 3, lxxvii.

Cancer of the tongue. C. RYALL. Brit. M. J. 9 3, i, 667 (1913)

Rare but serious affections of the tongue. HARTZ. Zhisch. f. Laryngol. Rhinol. f. Göttingen. Weich., 9 3, vi, No. 1.

Malplaced mandibular condyle. F. R. SMITH. Proc. Roy. Soc. Med. 9 3, vi, 77 (1913)

Cleft palate. J. F. O'CONNOR. New Orleans M. & S. J., 9 3, lxx, 127 (1913)

The preparation of the mouth before operation. J. G. TURNER. Proc. Roy. Soc. Med. 9 3, vi, 70 (1913)

Some recent work on dental surgery. J. G. TURNER. Practitioner. Lond., 9 3, xc, 742.

SEPTEMBER 1913

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH
Journal de Chirurgie, Paris
Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete Berlin
Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete Berlin

EDITORS

FRANKLIN H MARTIN Chicago
B. G. A. MOYNIHAN Leeds

AUGUST BIER Berlin
PAUL LECÈNE, Paris

EUGENE S TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J DUMONT Paris

EUGENE JOSEPH Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wyllis Andrews Wilford Bartlett Frederic A. Boley Arthur Dean Berman J F
Blair George E. Brewer W B. Brunsma John Young Brown David Cheever H. R. Child
Robert C. Coffey F Gregory Conant Frederic J. Cotton George W. Crill W R. Cribbins Harvey
Cushing J. Chalmers DeCoez Charles Davidson D N. Elmsworth J M. T. Finney Jacob Frank
Charles H. Frazier Kenneth Friend Wm. Fuller John H. Gibson D W. Graham W W. Grant
A. E. Harsted M. L. Harris A. P. Heiseck William Hewart Thomas W. Huntington James N.
Jackson E. S. Judd C. R. Kahle Arthur A. Law Robert O. Le Conte Dean D. Lewis Archibald
MacLaren Edward Martin Rudolph Miles Charles H. Mayo William J. Mayo John R. McDermott

(Editorial Staff continued on page viii, iv and v)

Editorial communications should be sent to Franklin H. Martin, Editor, 31 N. State Street, Chicago
Editorial and Business Offices: 31 N. State Street, Chicago, Illinois, U. S. A.
Publishers for Great Britain: Baillière Tindall & Cox, 25 Abchurch Lane, London

TABLE OF CONTENTS

I. INDEX OF ABSTRACTS OF CURRENT LITERATURE	i
II. AUTHORS	vii
III. ABSTRACTS OF CURRENT LITERATURE	265-354
IV. BIBLIOGRAPHY OF CURRENT LITERATURE	355-380

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

Aseptic and Antiseptic Surgery	
APERLO Disinfection of the Hands in Surgery	265
GARTANO Disinfection of the Skin with Thacture of Iodine	265
LEHMANN Modern Treatment of Wounds and First Aid	266
Anesthetics	
DELAJENKIN General Anesthesia with Lessened Circulation or Exclusion of the Four Extremities in General Anesthesia	266
FRECHET Nitrous Oxide Gas, Essence of Orlange, Ether and Sequestration in General Anesthesia for Operations in the Upright Position	266
STEIN Injury of the Phrenic Nerve in Local Anesthesia of the Brachial Plexus	267
ROST Anatomical Investigations of Some Cutaneous Nerves, Important for Local Anesthesia, with Reference to the Point at which They Penetrate the Fascia	267
MAYER Local Anesthesia and Anesthesia of Nerve Trunks	267
SCHLÖPHER Concerning Sacral Anesthesia	268
SEBERT Résumé of Literature Concerning Alupin	268

SURGERY OF THE HEAD AND NECK

Head	
TOMBEUX AND GIBERTY Primary Epithelioma of the Submandibular Glands	268
COUGLIER Partial Operation for Carcinoma Involving the Jaw	269
KITTLEWELL Fibrosis of the Maxilla	269
JULLIARD Subdural Intracranial Cyst of Transient Origin; Jacksonian Epilepsy Ameliorated by Trepanation	269
JONES The Value of Maltby's Connective Tissue Stain for the Demonstration of Variation in Thyroid Colloid	270
KARACHULIA Star Wound in the Left Temporal Region of the Brain	270
VON EISENBERG Brain Surgery	270
KRAUSE Brain Surgery	271
WALTER The Histological Structure of the Pituitary Gland	271
DANA AND BURKELLY The Functions of the Pituitary Gland, with Report of Feeding Experiments	272

ROSENKRANTZ Pathology and Operability of Tumors of the Pituitary Gland	27
Neck	
TRAUTMANN Tuberculosis of the Lymph Glands of the Neck and Its Relation to the Tonsils and the Lung	272
KÖTTNER A Case of Hyomandibular Fistula	272
MARINEL The Evolution of the Thyroid Gland	273
FAVER AND SAYT Syphilis of the Thyroid; Its Histological Analogies with Tuberculosis	273
THEBER Is Bilateral Resection or Unilateral Extirpation of the Thyroid Preferable?	274

SURGERY OF THE CHEST

Chest Wall and Breast	
GULICK Penetrating Combined Thoracic and Abdominal Wounds	274
CROONMARK AND BOTT Case of Congenital Thoracic Deformity	274
PARK The Thyroids and Other Ductless Glands	274
WYCKOFF Röntgen Ray Treatment of Thyroid Hypertrophy	275
Trachea and Lungs	
BROCKMEYER Operations for Tracheal Tumors	275
SCHUMACHER The Operative Treatment of Lung Embolism	275
FRIEDRICH The Effect of Extensive Resection of the Thoracic Wall on Marked Pulmonary Emphysema	276
Pharynx and Oesophagus	
LEBRULT Chronic Inflammatory Stenosis of the Cardiac Region of the Oesophagus	276
MAYER The Surgical Treatment of Cancer of the Oesophagus	276

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum	
MARINEL An Oblique Transverse Incision for Operations on the Gall-Bladder and Bile Ducts	277
ERDMANN The Subject of Peritonitis	277
WITTELSCHLO Two Successful Cases of Operation for Strangulated Inguinal Hernia in Female Infants, of the Ages of - and 17 Days	277

SURGERY OF THE NERVOUS SYSTEM

- EDER The Treatment of Tendo- and Neurolysis with Transplantations of Fatty Tissue 302
- FORESTER The Indications and Results of the Excision of Posterior Spinal Nerve Roots in Man 302

DISEASES AND SURGERY OF THE SKIN
FASCIA, APPENDAGES

- SCHULTZ The Treatment of Lupus 303
- WIENER Skin Grafting without Dressings 303

MISCELLANEOUS

- Clinical Entities—Tumors, Ulcers, Abscesses, Etc.
- LEIBAUER Recent Investigations on Tumors 304
- BRISTOL Newer Ideas Concerning the Problem of Cancer Etiology 304
- LAURENT Comparative Studies upon Cancer Cells and Normal Cells II. The Character of Growth in Vitro with Special Reference to Cell Division 305
- SUTTON Mycetoma in America 305
- CHILZ The Identity of Cause of Aseptic Wound Fever and So-Called Post-Operative Hyperthermia and Their Prevention 305
- Sera, Vaccines, and Ferments
- AUTRIER Hypersensitiveness to Tuberculo Proteins and to Tuberculin 306

Blood

- HENKIN The Relations of the Thyroid and Ovary to the Blood Picture 306
- SOLBERG Hemorrhagic Conditions of Children 306
- POWELL Recent Agents Which Specifically Check Coagulation and Decrease the Blood Pressure in the Female Genitalia 307
- LEWIS Thrombophlebitis of the External Iliac Vein 307
- ESCHERICH Thrombosis of the Portal Vein Following the Effect of Blunt Force to the Abdomen 307

- OTTENBERG, KALISKI AND FRIEDMAN Experimental, Agglutinating, and Hemolytic Transfusions 307

Blood and Lymph Vessels

- BALLIN Chylole Aneurism of the Hand 308
- HAYTER Tuberculoide of the Large Arteries Ith the Report of Case of Tuberculous Aneurism of the Right Common Iliac Artery 308
- FLEISHER Primary Tumors of the Vascular Sheaths 308
- WINTER Cold Gangrene Due to Vascular Paralysis 309
- NEURO Experimental Ligation of the Portal Vein; Its Application to the Treatment of Suppurative Pyelophlebitis 309
- JOSEPHSON The Etiology and Preventive Isolation of Elephantiasis 309
- EWING Endothelioma of Lymph Nodes 3

Poisons

- STRECHER The Micrococcus Tetragenus as Cause of Bacteremia in the Human 3
- TRIER Treatment of Acute Surgical Infections with Rhythmical Hyperemia 3 1

Surgical Therapeutics

- VOISCHITZ The Treatment of Septic Processes by the Administration of Alkalies 3
- VOX BOMM On the Value of Peristaltic in the After Treatment of Laparotomy Patients 311
- MAKOTZ The Treatment of Wounds Ith Sugar 31
- HILL Report on the Use of Pituitary Extract in Surgical Shock 3 1

Surgical Anatomy

- HESLER Some Observations on the Anatomy of the Inguinal Region, with Special Reference to the Absence of the Conjoined Tendon 3

Electrology

- STRICKER The Employment of Raibum in Surgery 3
- BICKLER AND MERRILL The Use of Radiography in Surgical Affections of the Stomach and Intestines 3

GYNECOLOGY

Uterus

- KJELLBERG I. Etiologies of the Endometrium (the Histological Changes Incident to Bleeding After Closure of the Endometrium Corpus) 3 4
- SILAKOFF The Blood Vessels of the Uterus during the Menstruation 314
- R Cancer of the Uterus 3 5
- PETERSON The Present Status of the Radical Abdominal Operation for Cancer of the Uterus 3 5
- TRILLERMAN Non-Surgical Treatment of Carcinoma 3 5
- MIRVET Marked Influence of Mesothorium on Cervical Cancer 3 6
- WILKIN The Indication to the Radical Treatment of Cancer of the Cervix 3 6
- HINE The Etiology and Treatment of Uterine Hemorrhages 3 7
- FRIED Treatment of Amenorrhoea 3 7
- FOOTZ X-ray Therapy in Uterine Hemorrhages 3 7
- FRUTKIN The Treatment of Uterine Hemorrhage by Means of the Roentgen Rays 3 7
- FERRY X-ray Therapy or Vaporization in the Treatment of Hemorrhagic Metropathia 318
- KOENIG A Perforation of the Fundus Uteri 318
- SIGMANT Removal of Danger of Peritonitis by the Operative Treatment of Ruptured Uterus 3 8
- Adnexal and Poucheterine Conditions
- FOXER On ovarian Functions in Basaloid Disease 3 8
- WINTERSTEIN The Autoplastic Ovarian Graft and Its Clinical Value 3 9
- REED AND LUCAS The Conditions of Sterilization of the Ovary by X-ray 3 9
- B. SUTTON A Note on Typhoid Infection of Ovarian Cysts 3 9
- WIGANT Ovarian Cyst with Twisted Pedicle 3 9

COWLEY: A Case of Malignant Multilocular Cyst of the Ovary in a Young Girl

CHYLO: Primary Malignant Neoplasm of the Fallopian Tube

External Genitalia

CAWENGER: Thrombosis and Vulvo-Vaginal Hematoma

BROOKS: Creation of New Vagina, with Report of Case of Transplantation of the Small Intestine into the Vagina

SCHMID: Vesico-Vaginal Fistula Cured by Transplantation of the Vagina Lata

SAVARI: Contribution to the Study of Primary Carcinoma of the Vagina

GRAFF AND NOVAK: Basedow's Disease and the Genital Glands

GALEFORD: A Contribution to the Chemistry of Vaginal Secretions

POLLARD: The Treatment of Gonorrheal Infections with Tarsapentins Suppositories

VOOT: Contribution to Melano-Sarcomata of the Clitoris

Miscellaneous

SPILLMANN, THUR: von BENTZ: Spontaneous Gangrene of the Genital Organs in Men and in Women

CARSON: Menstrual Mollusca

HENRY: Clinical Manifestations of Genital Tuberculosis in Women

FORDAY: Management of Genital Tuberculosis in Women

TRIEHLER: The Influence of the Clitoris on Cancer

HAUER: Multiple Primary Cancer of the Female Genital Organs

GOUDIER: A Case of Arterioangitis Following Castration in an Adult Woman

FRANK: Method of Physical Treatment in Gynecology

KLOTZ: X-Ray Treatment in Gynecology

FRANKL: Technique of X-Ray Treatment in Gynecology

WALTHER: Synthetic Hydrastis-Hayes, Substitutes for Fluid Extract of Hydrastis Canadensis

OBSTETRICS

Pregnancy and Its Complications

PETERSON: A Case of Full Term Ectopic Gestation with Dead Fetus in the Abdominal Cavity for Eight Months

NACURNEY: A Case of Pregnancy Five Years after Puerperal Operation for Perforated Uterus

KRAPOVINSKY: A Case of Full Term Extra-Uterine Pregnancy with Living Child

HOLLANDER: Full Term Pregnancy in an Accessory Tube of Bicornuate Uterus

SEITZ: Immaculate Pregnancy

GALL: Pituitary in the Treatment of Menstrual Disorders

BENTON: Carbohydrate Metabolism in Pregnancy and in Eclampsia: Few Words Concerning Insufficiency of the Liver

CHURCH: Researches on Puerperal Eclampsia

ZIMMER: The Tenacity of Uterine during the Puerperium and in Eclampsia

ZAPF: Consideration of the Treatment of Abortions

TRADOFF: End Results of the Conservative Treatment of Strophomenous Abortions

MELNICKY AND ZOMARTOV: Pregnancy during Lesions and Its Influence on the Composition of the Blood

ALBERT: A Case of Severe Paraleptic Endometritis in Pregnancy

BRONCHER: Treatment of Pyelitis in the Pregnant

GREEN: Cholecystitis and Cholelithiasis Associated with Pregnancy

VOOT: Addison Disease and Pregnancy

DREWS: Pregnancy, Labor and Puerperium in Case of Extensive Unilateral Telangiectases and Varices Formation with Lymphatic Dysplasias

MORRISON: Thyroid and Pregnancy

GRAFF: Thyroid and Pregnancy

ASCHEVER: Changes in the Pituitary Glands in Pregnancy

SEITZ: Disturbances of Metabolism in Pregnancy Labor and the Puerperium

KATZ: Heart Lesions in Pregnancy

ASCHEVER: Albuminuria in Pregnancy

DREWS: Researches Concerning the After Life of Pregnancies Complicated by Heart and Kidney Lesions

SCHLAYER: The Interruption of Pregnancy in Diseases of the Kidneys

FOOTE: Bilateral Ovarianectomy During Pregnancy

Labor and Its Complications

FACE: How Many Full Term Children in Cephalic Presentation Pass the Inlet Spontaneously in First Pelves and Are Born Alive?

TRIST: Breach Presentations in the Amsterdam Clinic for Women from 1905-9

BROCKENBURY: Case of Rupture of Vaginal Fornix During Labor

Puerperium and Its Complications

LOOS: A Contribution to the Etiology of Late Hemorrhages in the Puerperium

ZANCKEN: Inversion of Uterus in Puerperium

ZWEIG: A Critical Review of the Medical and Surgical Treatment of Puerperal Eclampsia

Miscellaneous

DREWS: The Origin of Respiratory Movements in the Fetus

KARASOV: The Influence of the X-Rays on the Fetal Membranes

ATWOOD: Demonstration of a Fetus with Solid Embryoma of Ovary

TANIGUCHI: The Time when Lactic Acidosis Occurs in the Fetus and Its Clinical Significance

SEIDEN: A Case of Delayed Marrowbone Expansion

SCHMIDT: Experiences with the Abderhalden Reaction	337	BAR: Surgical Treatment of Hemorrhages of Pregnancy Labor and the Puerperium	357
PETERS: Concerning Schoetlander's Publications on the Determination of the Length of Pregnancy by Means of Histological Examinations of the Placenta	337	SLIMMON: I Albuminuria Likely to Recur in Subsequent Pregnancies?	338
		COLLE: Action of Placental Extract upon the Vascular System and upon Blood Coagulation	338

GENITO-URINARY SURGERY

Kidney and Ureter		FURBER: Impacted Unilateral Calculi Released by Fulgurition	343
NOVOTSKY: The Relation between the Chromaffin Substance and Adrenals in the Suprarenal Capsules	339	GERTON: Infections of the Upper Urinary Tract in Infancy and Childhood	344
LOEWENHORN: The Physiology of Kidney Innervation	339	P. WLOTT: Accessory Ureters	344
ARULT: Renal and Urethral Calculi	339	Bladder, Urethra, and Penis	
BARTLEY: Subcapsular Rupture of the Kidney with Report of Cases	340	LOUWRAU: Therapeutic Fistulization of the Bladder	344
VOELCKER: Dilatation and Infection of the Renal Pelvis	340	BONAMY AND DARTIGUES: Technique of External Genioplasty in the Male	345
GILROY: Symptoms of Intestinal Occlusion in Nephritic Colic	34	Genital Organs	
DIMICK: The Structure and Histogenesis of Congenital Kidney Neoplasms	34	SOCHTOWSKI: Torsion of the Testicle	346
SPENCE: Perirenal Hematomas	343	BELFIELD: Vagotomy Radiography of the Seminal Ducts	346
FURBER: Preliminary Report upon the Use of Indigo-Carmine Intravenously as a Test of Renal Function	34	GLEASON: Hypertrophy of the Prostate	347
JOHNS: Acute Septic Infection of the Kidney and Its Surgical Treatment	34	Miscellaneous	
LAWTHER: Renal Function after Decapsulation of the Kidney	34	LEITCH PATER AND MANNING: Radiographic Examination of the Urinary Tract	347
PARNAL: Contribution to the Study of Calculi of the Intra-Parietal Portion of the Ureter	343	MANNING: Significance of Bleeding Following Operation on the Urinary Tract	348
		BACHMANN: Venereal Prophylaxis: Why It Sometimes Fails	348

SURGERY OF THE EYE AND EAR

Eye		SELM: Contribution to the Pathology of Hemorrhagic Glaucoma	350
BROWN: The Relation of Accessory Cavity Diseases to the Eye and the Orbit	349	HALLITT: Glaucomatous Tension Relieved by Anterior Sclerotomy	350
LARG: The Influence of Chronic Septal upon Eye Disease	349	HIND: A Case of Enlargement of the Eye Ball	35
DWYER: The Use of Vaccines in Eye Infections	349	POOLEY AND WILKINSON: Blindness of Left Eye Due to Pressure of Extended Maxillary Antrum	35
VALL: A Study of Some Forms of Congenital Cataract, with Special Reference to Their Clinical Significance	349	McREYNOLDS: Some Impressions of the Oxford Ophthalmological Congress and the Ophthalmological Section of the British Medical Association at Birmingham	35
SNODGRASS: The Intra-Capsular Operation for Cataract after the Method of Professor Standen	350	Ear	
CAMPBELL: Five Cases of Hereditary Cataract	350	WELLS: A Case of Menstrual Abscess without Otorrhea	35
JENNINGS: The Removal of Senile Cataract before Maturity	350	VOORHEES: Serous and Suppurative Labyrinthitis: Differential Diagnosis	35
MIXTER: Another View of the Extraction in the Capsule Cataract Operation	350	HAUTANT: Indications for and Technique of Trepanation of the Labyrinth	35

SURGERY OF THE NOSE THROAT AND MOUTH

LAWNER Tumors in the Neighborhood of the Olfactory Pharyngeal Tube	353	LEVY Laryngeal Tuberculosis	353
RAY The Tonsil Question Again	353	RICHMOND The Treatment of Laryngeal Stenosis Following Diphtheria	354
CARTER A Simple and Satisfactory Method for Removing Adenoids and Tonsils	353	HROGNY Apparently Non-Suppurative Nasal Sinus Disease	354
HOFK Laryngeal Tumor Treated by Scleroid	353	ISLAHSA Suspension Laryngoscopy with Report of Cases	354

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNIQUE	
Operative Surgery and Technique	353
Asseptic and Antiseptic Surgery	353
Anesthetics	353
Surgical Instruments and Apparatus	353

SURGERY OF THE HEAD AND NECK	
Head	355
Neck	357

SURGERY OF THE CHEST	
Chest Wall and Breast	358
Trachea and Lungs	358
Heart and Vascular System	359
Pharynx and Esophagus	359
Miscellaneous	359

SURGERY OF THE ABDOMEN	
Abdominal Wall and Peritoneum	359
Gastro-Intestinal Tract	360
Liver, Pancreas, and Spleen	361
Miscellaneous	361

SURGERY OF THE EXTREMITIES	
Diseases of Bones, Joints, Muscles, Tendons, General Conditions Commonly Found in the Extremities	361
Fractures and Dislocations	361
Surgery of the Bones, Joints, etc.	362

ORTHOPEDIC SURGERY	
Diseases and Deformities of the Spine	362
Malformations and Deformities	362

SURGERY OF THE NERVOUS SYSTEM	
DISEASES AND SURGERY OF THE SKIN, FASCIA, APPENDAGES	363

MISCELLANEOUS

Clinical Facilities—Tumors, Ulcers, Abscesses, etc.	358
Sera, Vaccines, and Ferments	359
Blood	359
Blood and Lymph Vessels	359
Poisons	359
Surgical Therapeutics	359
Surgical Anatomy	359
Electrology	359
Military and Naval Surgery	359

GYNECOLOGY

Uterus	359
Adnexal and Peritoneal Conditions	359
External Genitalia	359
Miscellaneous	359

OBSTETRICS

Pregnancy and Its Complications	359
Labor and Its Complications	359
Puerperium and Its Complications	359
Miscellaneous	359

GENITO-URINARY SURGERY

Kidney and Ureter	359
Bladder, Urethra, and Penis	359
Genital Organs	359
Miscellaneous	359

SURGERY OF THE EYE AND EAR

Eye	359
Ear	359

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth	359
-------------------------	-----

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

- Abell, 330
 Ach, 35, 289
 Albert, 329
 Aperio, 203
 Arnaud, 286
 Aschner, 330, 33
 Asthana, 336
 Austrian, 306
 Bachmann, 343
 Barch, 33
 Balkin, 308
 Bar, 337
 Barkley, 340
 Barreau, 297
 Bédère, 3
 Belfield, 346
 Benech, 32
 Benckin, 37
 Bertelley, 27
 Björkenberke, 334
 Black-Sutton, 39
 Boljarsky, 290
 Bonamy, 343
 Bonnet, 258
 Boyd, 74
 Brault, 29
 Bristol, 304
 Brochuert, 75
 Brownema, 319
 Browha, 320
 Brown, 329
 Campbell, 320
 Carter, 313
 Carwardine, 29
 Castley, 293
 Carstensenberg, 320
 Chalier, 268
 Cheever, 285
 Child, 37
 Chikoko, 322
 Collie, 318
 Corner, 293
 Coughlin, 269
 Cowie, 320
 Crile, 305
 Crookshank, 74
 Dappaw, 290
 Dana, 7
 Darligues, 345
 Datta, 282
 Deaver, 284
 Dédel, 336
 Delajennère, 280
 Diemer, 24
 Dismace, 296
 Drown, 320
 Duromont, 294
 Dwyer, 329
 Eden, 302
 Enderlein, 77, 297
 Eick, 23
 Erwig, 3
 Faerno, 30
 Fante, 73
 Ferrazzi, 308
 Findlay, 323
 Finsterer, 280
 Foerster, 302
 Forgas, 37
 Fowler, 285
 Fowler, 286, 292
 Frankl, 38, 35
 Franz, 324
 French, 266
 Friedenwald, 28
 Friedman, 297
 Friedrich, 276, 29
 Fries, 37
 Fuchs, 38, 332
 Furman, 322, 323
 Gattano, 263
 Gell, 37
 Gessert, 268
 Gleason, 347
 Goebel, 300
 Goldstein, 324
 Graefenberg, 3
 Grall, 32, 330
 Green, 220, 344
 Grégoire, 29
 Guéna, 34
 Gukie, 274
 Gurd, 320
 Halbert, 350
 Hartung, 295
 Harrook, 302
 Hawser, 324
 Hawtatt, 25
 Haythorn, 308
 Helfmann, 306
 Heuer, 33
 Hewett, 3
 Higgins, 354
 Hill, 2
 Hird, 357
 Hirsch, 37
 Hollander, 326
 Hope, 353
 Igler, 354
 Jacobson, 293
 Jennings, 350
 Jones, 70
 Jordan, 280
 Joseph, 34
 Johnson, 309
 Johnson, 269
 Kalaki, 297
 Karschkin, 70
 Kawasoye, 326
 Kettler, 280
 Kjugnard, 324
 Klotz, 35
 Krausopolaky, 326
 Kruse, 71
 Kreiss, 33
 Kretzner, 38
 Kuttner, 272, 300
 Lacumacque, 319
 Lambert, 305
 Lang, 340
 Lapierre, 34
 La mer, 353
 Leake, 297
 Legrand, 287
 Leguen, 347
 Levy, 353
 Lexter, 299
 Liehault, 276
 Liemann, 266
 Lissauer, 304
 Lobenhoffer, 330
 Loda, 334
 Lougand, 286
 Looman, 344
 Lyke, 280
 Maguen, 3
 Malagot, 347
 Marlen, 277
 Marlow, 273
 Marlow, 328
 Mf, 20, 283
 McReynolds, 35
 Meding, 350
 Meisner, 38
 Melnickoff, 328
 Mériel, 3
 Meyer, 267, 26
 Moander, 278
 Morison, 295
 Mosbacher, 320
 Murphy, 297
 Nasta, 30
 Neudorfer, 28
 Neugbauer, 326
 Neuhof, 309
 Nordmann, 29
 Novak, 32
 Nowicki, 320
 Ottenberg, 307
 Papan, 327
 Park, 274
 Pascual, 323
 Pawell, 344
 Peters, 287
 Peterson, 35, 326
 Pfahler, 37
 Pflück, 282
 Pollard, 321
 Pooley, 271
 Popelski, 307
 Prutz, 78
 Raart, 302
 Ra, 14, 35
 Ray, 353
 Regard, 39
 Richardson, 354
 Rorschach, 27
 Roat, 267
 Rotkman, 30
 Rydzier, 288
 Santol, 272
 Savat, 32
 Savy, 72
 Schlayer, 33
 Schlimpert, 268, 337
 Schmidt, 320
 Schumler, 283
 Scholze, 293
 Schumacher, 275
 Seifert, 268
 Setts, 320
 Short, 292
 Sigwart, 318
 Simon, 26
 Simpson, 350
 Siemon, 338
 Sochischen, 326
 Solkin, 337
 Sorrel, 306
 Speere, 322
 Stillman, 322
 Stahl, 350
 Stein, 267
 Sticker, 3
 Strobel, 3
 Sudaloff, 34
 Sutton, 305
 Taylor, 299
 Theilhaber, 215, 33
 Thies, 3
 Thiry, 322
 Thomas, 30
 Tietze, 274
 Tonneau, 268
 Trautott, 328
 Trautmann, 7
 Treib, 324
 Trinchese, 326
 Vail, 329
 Voelcker, 296
 Voelcker, 320
 Vogt, 3, 320
 Von Braun, 3
 Von Elschberg, 270
 Von Haberer, 284
 Von Kieckl, 282
 Voobena, 351
 Vorschitz, 3
 Volpman, 290
 Walter, 271
 Walther, 35
 Wells, 35
 Werder, 36
 Whitehouse, 39
 Whitestock, 277
 Wieser, 293
 Wieting, 309
 Wight, 39
 Williams, 35
 Wismar, 297
 Wyckoff, 275
 Zangmeister, 355
 Zappi, 326
 Zink, 335
 Zimmer, 327
 Zornikow, 328

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Stuart McGuire Lewis S. McMurtry Willy Mayne James E. Moore Fred T. Murphy John B. Murphy
James M. Naff Edward H. Nichols A. J. Ochsmar Roswell Park Charles H. Peck J. R. Pennington
S. C. Pinner Charles A. Powers Joseph Ramsdell H. M. Richter Emmet Rickard H. A. Royster
W. E. Schroeder Charles L. Scudder M. G. Seelig E. J. Seem John E. Summers James E. Thompson
Herman Tubbidge George Tuffy Vaughan John R. W. Allen. CANADA: E. A. Archibald J. E. Armstrong
H. A. Bruce Irving J. Cameron Jasper Halpern J. Alex. Hutchinson Francis J. Sheppard F. W. Starr
T. D. Walker. ENGLAND: H. Brunton Angus Arthur H. Barker W. Watson Chayne W. Sampson Handley
W. Arbuckle Lee G. H. Makins Robert Milne B. G. A. Meynham Ruskens Parker Harold J. Stiles
Gordon Taylor

GYNECOLOGY AND OBSTETRICS

AMERICA: Frank T. Andrews Brooks M. Anspach W. E. Ashton J. M. Baldy Channing W. Barrett
Herman J. Boldt J. Wesley Bardsley LaRay Brown Henry T. Byford John G. Clark Edwin B. Craig
Thomas B. Cullen Edward P. Davis Joseph B. D. Lee Robert L. Dickinson W. A. Newman Portland E. C.
Dudley Hugo Ehrenfest C. B. Elder Palmer Fladley Henry D. Fry George Gellhorn J. Kiddle Goff
Beth C. Gordon Barton C. Hirst Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krag
L. J. Laditski H. F. Lewis Frank W. Lynch Walter P. Mantion James W. Markee E. E. Montgomery
Henry P. Newton George H. Noble Charles E. Paddock Charles B. Penrose Ruben Petersen John O.
Polak Wm. M. Polk Edward Reynolds Knoll Rice John A. Sampson F. F. Simpson Richard R. South
William S. Stone H. M. Stowe William E. Stadford Frederick J. Tammig Howard C. Taylor Hiram
K. Vinberg W. F. B. Wakefield George G. Ward, Jr. William H. Wathen J. Whitridge Williams.
CANADA: W. W. Chignas William Gardner F. W. Marlow K. C. McIlwrick V. P. Watson A. H.
Wright. ENGLAND: Russell Andrews Thomas W. Eden W. E. Fothergill T. B. Haller Thomas Wilson.
SCOTLAND: William Fardyce J. M. Munro Kerr. IRELAND: Henry Jellott Hastings Tweedy.
AUSTRALIA: Ralph Worrall. SOUTH AFRICA: H. Temple Murrell. INDIA: Kadamath Desai.

GENITO-URINARY SURGERY

AMERICA: Wm. L. Bann Wm. T. Beufield Joseph L. Bookin L. W. Brunsman Hugh Cabot John
R. Cault Charles H. Chetwood John H. Cunningham J. S. Eisenhardt Remon Gifford Francis R.
Haggar Robert Herbst Edward L. Kayes, Jr. Gustav Kallischer F. Krausel V. D. Lamphorne
Bransford Lewis G. Frank Lydston Greenville MacGowan L. E. Schmidt J. Bentley Seiler E. A. Thomas
Wm. K. Winckler Hugh H. Young Joseph Zehner. ENGLAND: T. W. Thomson Walker John G. Purdon.
INDIA: Megandrolal Mitra.

ORTHOPEDIC SURGERY

AMERICA: E. C. Abbott Nathaniel Allison W. S. Barr Gwilym G. Davis Albert G. Fredberg Arthur
J. Gilllette Virgil P. Osborne Joel E. Goldthwait G. W. Irving Robert W. Lovett George E. Packard John
L. Porter John Riddle Edwin W. Ryerson Harry M. Sherman David Silver H. L. Taylor H. Augustus
Wilson James E. Young. CANADA: A. Mackenzie Forbes Herbert P. H. Galloway Clarence L. Starr.
ENGLAND: Robert Jones A. H. Tubby George A. Wright.

SURGERY OF THE EYE

AMERICA: C. H. Beard E. V. L. Brown H. D. Bruce Vard H. Hulse Edward Jackson W. P. Mayble
William Campbell Peery Brown Peery Robert L. Randolph John E. Weeks Camille D. Wessett William
H. Wilder Casey A. Wood Hiram Woods. ENGLAND: J. B. Lawford W. T. Holmes Spicer. SCOTLAND:
George A. Barry A. Matfield Ramsey.

INTERNATIONAL ABSTRACT OF SURGERY
CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EAR

AMERICA: Irving W. Day, Max A. Goldstein, J. F. McKernon, Norval H. Pierce, S. MacCann Smith.
CANADA: H. B. Bickart. ENGLAND: A. H. Chasle. SCOTLAND: A. Logan Turner. IRELAND:
Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA: Joseph C. Beck, T. Melville Hardie, Thomas J. Harris, Christian E. Holmes, E. Fletcher
Ingals, Chevalier Jackson, John N. MacKinnon, G. Hudson Makras, George Paul Marquis, John Edwin
Rhodes. AUSTRALIA: A. J. Brady, A. L. Kenney. INDIA: F. O'Keefe.

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS—General Surgery
CAREY CULBERTSON and CHARLES B. REED
—Gynecology and Obstetrics
LOUIS E. SCHMIDT—Genito-Urinary Surgery

JOHN L. PORTER—Orthopedic Surgery
WILLIAM H. WILDER—Surgery of the Eye
NORVAL H. PIERCE—Surgery of the Ear
T. MELVILLE HARDIE—Nose and Throat

GENERAL SURGERY

AMERICA: Carroll W. Allen, E. K. Armstrong, Donald C. Balfour, H. R. Baskinger, George E. Bailey,
B. M. Bernheim, Barney Brooks, Walter H. Buhlig, J. P. Carratt, Otto Castle, Phillips M. Chase,
James F. Churchill, Isadore Cohen, Karl Connell, Lewis E. Crawford, V. C. David, Nathan E. Davis III,
D. L. Despard, L. G. Dwan, Frederick G. Dyas, A. E. Eustace, Edna Fletcher, Herman R. Gessner, Donald
C. Gordon, Torr Wagner Harmer, Christian D. Hauch, James P. Henderson, Charles Gordon Heyd,
Harold P. Kohn, Lucien H. Lendry, Felix A. Larue, Halvey E. Leder, Urban Mason, Wm. Carpenter
MacCarty, E. F. McGrath, R. W. McNally, Alfred H. Neehree, Matthew W. Pickard, Maurice C. Pincoffs,
Eugene H. Pool, H. A. Pettis, Martin B. Rehling, E. C. Riebel, Floyd R. Day, M. J. Saffert, J. H. Skiffes,
Harry G. Moon, John Scryth, Carl E. Steinke, Sister H. Tuholske, Henry J. Van den Berg, W. M. Wilkinson,
Eddy M. Williams, Erwin P. Zelder. ENGLAND: James E. Adams, Percival Cole, Arthur Edmonds,
I. H. Houghton, Robert E. Kelly, William Gillett, B. C. Mayberry, Eric P. Gould, T. B. Legg, Felix Reed,
E. G. Schlenger, E. Baugster Simonds, Harold Upcott, O. G. Williams. SCOTLAND: John Fraser,
A. P. Mitchell, Henry Wade, D. P. D. Wylie.

GYNECOLOGY AND OBSTETRICS

AMERICA: S. W. Banfill, A. C. Beck, Daniel L. Borden, D. H. Boyd, Anna M. Brewster, E. A.
Bullard, Eugene Cary, W. H. Cary, Sidney A. Chaffin, Edward L. Cornell, A. H. Corlies, A. Henry Dunn,
F. C. Emsworthy, Lillian K. P. Farrer, W. B. Feikins, Howard G. Garwood, Maurice J. Gelpi, Luba R.
Goldsmith, C. G. Gracie, R. Sprout Hensley, T. Leischaft Hein, D. S. Hinds, John C. Hirt, F. C. Irving,
L. A. Jahnke, Herman L. Katze, George W. Ketzak, H. W. Kottmeyer, Julius Lackner, Herman Lober,
Eduard Lorbal, Donald Macomber, Harry B. Matthews, L. P. Milligan, Arthur A. Morse, Ross McPherson,
George W. Osterhedge, Albert E. Pagan, George W. Partridge, Wm. D. Phillips, Reginald M. Rawls,
L. W. Sawyer, Halodora Schiller, A. H. Schmidt, Henry Schmitt, Edward Schomann, Emil Schwarz,
J. M. Slesmonson, Camille J. Stamm, Arnold Sturmdorf, George de Tarnowsky, S. B. Tyron, Marie L. White,
P. F. Williams, R. E. Woburn. CANADA: James R. Goodall, H. M. Little. ENGLAND: Harold Chapple,
Harold Clifford, F. H. Lacey, W. Fletcher Shaw, Clifford White. SCOTLAND: H. Latta Murray,
J. H. Willett.

INTERNATIONAL ABSTRACT OF SURGERY

ABSTRACT EDITORIAL STAFF—Continued

GENITO-URINARY SURGERY

AMERICA Charles E. Barnett J D Barney E. B. Barringer Horace Binney Theodore Broadwitz
H. A. Fowler Homer G. Fuller F. E. Gardner Louis Gross Thomas C. Holloway H. O. Hamner James J
Houghton Joseph Hum Robert H. Ivy I. B. Kell H. A. Kraus Herman L. Kratschmer Martin
Kroftsmeyer Samuel Logan William E. Lower Harvey A. Moore Stirling W. Moersland A. Nelson
C. O'Crowley R. F. O'Neill H. D. Orr G. M. Peterkin C. D. Pickrell H. J. Polkey Jaroslav Rada
Edmund L. Saunders S. Wm. Schapiro George O. Smith A. C. Stokes L. L. Ten Broeck H. W. E. Walker
Carl Lewis Wheeler ENGLAND J. Swift Joly Sidney G. Macdonald.

ORTHOPEDIC SURGERY

AMERICA Charles A. Andrews A. C. Bachmeyer George I. Baumann George E. Bennett Howard
E. Bicker Lloyd T. Brown C. Herman Bucholz C. C. Chatterton W. A. Clark Robert B. Confield Alex R.
Colvin Arthur J. Davidson Frank D. Dickson Albert Elmerfeld William G. Erving F. J. Gosselin M. R.
Henderson Ph. Hoffman C. M. Jacobs S. F. Jones F. C. Kiefer F. W. Lamb Prescott LeBreton
Paul B. Magnuson George J. McChesney H. W. Orr Archer O'Reilly H. A. Plagrow W. W. Pionnier
Robert O. Ritter J. W. Sizer John J. Shaw Charles A. Stone Paul P. Swift R. B. Thomas James O.
Wallace James T. Watkins C. E. Wells DeForest P. Willard H. W. Wilcox. CANADA D. Gordon Evans.
ENGLAND: Howard Buck E. Rock Carling N. Ashton Dunn E. Lanning Evans W. H. Hey John
Moxley T. P. McMurray Charles Roberts G. D. Telford.

SURGERY OF THE EYE

AMERICA E. W. Alexander K. M. Brinkerhoff C. G. Darling T. J. Dimetry J. E. Ellis E. R. Fowler
Lewis J. Goldbach Harry S. Grady J. Milton Oriscan E. F. Krag Francis Lane Walter W. W. Woon
ENGLAND F. J. Cunningham M. L. Hepburn Foster Moore. SCOTLAND John Pearson Arthur Hy R.
Stoddart Ramsey H. Trequair James A. Wilson.

SURGERY OF THE EAR

AMERICA H. Beattie Brown J. R. Fletcher E. R. Fowler A. Spencer Kaufman Robert L. Loughran
W. H. Theobald T. C. Whistler. CANADA H. W. Jamieson. ENGLAND G. J. Jenkins. SCOTLAND
J. R. Fraser IRELAND: T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA George M. Coates Carl Fischer K. Clyde Lynch Ellen J. Patterson. AUSTRALIA V.
Munro. INDIA John T. Murphy

COLLABORATING EDITORIAL STAFF FOR FRANCE AND GERMANY

Journal de Chirurgie B. Cuneo J. Dumont A. Gossel P. Locene Ch. Lenormant R. Prost
Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete A. Bier A. Frh. von Eiselsberg
C. Franz O. Hildebrand A. Köhler E. Kuster F. de Quervain V. Schmöden
Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete O. Beutner
A. Doderlein Ph. Jung B. Kronig C. Menge O. Pankow E. Ronge E. Wertheim
W. Zangemeister

INTERNATIONAL ABSTRACT OF SURGERY

SEPTEMBER, 1913

ABSTRACTS OF CURRENT LITERATURE GENERAL SURGERY SURGICAL TECHNIQUE

ASEPTIC AND ANTISEPTIC SURGERY

Aperio Disinfection of the Hands in Surgery
(Sulla disinfezione delle mani in chirurgia) Ciro
Arr. 93, XVI 33
By Zentralbl. f. d. ges. Chir. Gernsgeb.

In an external series of experiments the author has endeavored to determine the value of the various methods of disinfecting the hand. During the different phases of the operation the fingers of the operator were dipped into a sterile 1 per cent gelatine solution for 5 seconds. They were rubbed against each other. The gelatine had been hardened by freezing. It was not kept for eight to ten days at 18° C.

The author comes to the following results: (1) Continued washing with warm water and soap with a sterile brush, is not sufficient to remove the germs from the skin; the result is no better if the washing is continued for an hour. Drying the hands with a sterile towel has no effect. (2) In order to reduce the number of germs, the use of alcohol is indispensable. Cleaning with alcohol without previous disinfection with soap and water gives the best results. It is to be recommended 4 to 10 times for disinfecting the skin previous to an operation. (3) Washing the hands with 1 per cent bichloride of mercury solution after the usual method of disinfecting has no effect on the number of germs in the skin. (4) During the operation the germs migrate from the hands to the wound, and in spite of this migration the wound heals. (5) Hands washed for ten minutes with water then for five minutes with alcohol and later covered with gloves, are actually sterile. The gloves must be put on properly and washed once more for at least 60 seconds with alcohol. (6) The saprophytic flora is found most frequently on the skin. (7) The concentration of the alcohol, its admixture with iodine or ether is of little importance; its denatured form, is of no special importance.

In conclusion, the following methods are recommended:

For emergency disinfection wash for ten minutes in alcohol (70-95 per cent) either grain or wood spirits. For ordinary disinfection, wash with water and soap for ten minutes, and then for five minutes in alcohol. *MORRIS.*

Gietano Disinfection of the Skin with Tincture of Iodine (Contributo clinico-statistico alla disinfezione della pelle con tintura iodica) Genn. d. esp. d. di Milano, 93, XXXII 57
By Zentralbl. f. d. ges. Chir. Gernsgeb.

Most of the Italian surgeons favor the use of the Gross method of disinfection of the skin with the tincture of iodine. In various Italian clinics it was determined by means of bacteriological experiments that the results were best when the tincture of iodine was painted on the dry skin, and that it was not so good when soap and water had been used previously. Probably after washing the skin with soap and water the iodine is not able to penetrate the excretory ducts of the subacneous and sweat glands. Some disadvantages were reported from several clinics from the use of the tincture of iodine, e. g. eczema, erythema, and toxic albuminosis. Three post-operative cases of death (Blesolsky, Moscovitz, P.iris) have been reported outside of the Italian clinics, where the cause of death was charged to the use of the tincture of iodine. The author thinks these three fatal cases cannot be due to the action of the iodine alone and that the other injuries mentioned above could have been avoided by the proper use of this method. He uses a freshly prepared solution of six parts of iodine to 100 parts of 95 per cent alcohol, paints it on the dry skin twelve minutes before beginning the operation and once more two or three minutes later. In a series of 350 cases prepared in this manner for operation, he reports splendid results. *HERRMANN.*

Liekmann. *Modern Treatment of Wound and First Aid (Moderne Wundbehandlung und erste Wundversorgung)*. Zentrbl. f. Chirurgie 934.
By Zentrbl. f. d. ges. Chir. u. L. Grenzgeb.

The author recommends the bolus oiled past introduced by him, consisting of bolus alba, alcohol and glycerin, and his bolus soaps for general use. The soap simplifies the skin disinfection of the hands and of the field of operation, only three minutes being necessary. Water and brush are superfluous when the past is used, as are all other chemical antiseptics in the preparation of wounds. It is cheap (100 gm. sufficing for fifty dressings) and can easily be carried anywhere in small tubes. These are not all the advantages, as it is inflammable and can be used for emergency sterilization of instruments.

GERMANY.

ANÆSTHETICS

Delajénère. *General Anæsthesia with Lessened Circulation or Exclusion of the Four Extremities in General Anæsthesia (Anestesia general con circulación reducida ó exclusión de los cuatro miembros en la anestesia general)*. *Clinica med.* 92, 36 anal. 344.
By Zentrbl. f. d. ges. Chir. u. L. Grenzgeb.

The author has used the ether in 14 cases of chloroform and 35 cases of ether narcosis. It is important to apply the binders rapidly so the narcosis can be begun as soon after as possible, because patients complain of disagreeable sensations at the sites of application, even after several minutes. The limbs must be ever filled with blood, so the author recommends lowering the limbs for a short time before applying the binders. If the constriction was not complete, and venous stasis occurred small intravascular hemorrhages are found after the removal of the constrictors. These disappear shortly leaving no evidence.

Regarding the influence which the diminished circulation exerts upon the whole organism the following is important: respiration is quickened and more superficial. Delajénère has observed average respirations of 30-35 per minute. The polypnea begins to regress the moment one binder is removed and returns normal only when all the binders are removed. The pulse remains unaltered. The blood pressure drops 2-3 cm. A recumbent position acts much more rapidly than the usual method. Usually five minutes are required to produce deep sleep as contrasted with nine minutes for the customary narcosis. This advantage is seen especially in narcotizing alcoholics. The amount of anæsthetic required is about 50 per cent less. The patient wakes up much more quickly and 4 times may wake immediately. The greatest drawback seems to be the absence of the organic disturbances which so frequently accompany chloroform narcosis. Vomiting is much less common and less severe. Post-operative atonuria is practically absent.

Delajénère frequently noted the distinct d

vasitags of this method in collapse. The loosening of one or two constrictors sufficed to overcome this accident. Entirely apart from the diluting of the blood saturated with the narcotic, the blood from the extremities, loaded as it is with carbon dioxide, has an important rôle in stimulating the medulla oblongata. *Thrombophlebitis* was seen by the author in only four cases. Three of these were gynecological in which the pressure of the leg rests on the dilated popliteal veins may be blamed. The 10 deaths seen by the author cannot be ascribed to the anæsthetic, because both patients had been given up before the operation. The author considers severe myocarditis and phlebitis as strict contra-indications. Absolute indications are affections of the liver and kidney as well as alcoholism.

PARIS.

French. Nitrous Oxide Gas, Essence of Orange, Ether and Sequestration in General Anæsthesia for Operations in the Upright Position.
N. Y. M. J. 93 April, 1906.

By Sarg. Gynec. & Obst.

The author expresses the belief that more skillful operative work can be done, less blood lost and less anæsthetic required in operating in the upright position. There are also fewer disagreeable symptoms during the recovery stage. A new operating table-chair is presented. Since using this table-chair there has been marked improvement in the condition of the patient during and after the operation.

The stage of excitement can be bridged by nitrous oxide but in the opinion of the author it can be done with greater ease and certainty with the essence of orange and ether. It unquestionably requires large experience with the administration of nitrous oxide gas to enable one to do what is so accurately with the ether which follows that the stage of excitement will be eliminated. From tests which were carried on for over a year the author is convinced that shock from the loss of blood and from the anæsthetic can be materially reduced by the manner of administering it. It states there is no question but that hemorrhage is reduced if the anæsthetic from the beginning is smoothly administered, the second stage omitted and the patient brought to full surgical anæsthesia without jarring or body disturbance of any kind. The uniform employment of helpful mental suggestion by every individual in contact with the patient up to the time of induction of anæsthesia assists in preventing an excessive discharge of nervous energy through fear which is one of the elements in the "anæsthetic association of Celsus." If induction has been satisfactory the anæsthetic not only should be, but must be in many cases, diminished in quantity or withdrawn, as soon as the upright position has been attained, to prevent narcosis becoming too deep for safety. When reflexes begin to reappear the anæsthesia can be continued by the occasional administration of the vapor through the mouth. The fact that only half, or less than half of

th usual quantity of ether is required to maintain anesthesia with this method should not deceive one into believing that only partial anesthesia is obtained, for it is in reality a full one.

The sequestration method, in association with the upright position, which has been carried out in fifty eight cases, reduces still further the loss of blood and the amount of anesthetic required. Full anesthesia is maintained for fifteen to twenty minutes after the body is brought to the upright position and the inhaler removed. The average blood loss with the sequestration method whether applied to arms and legs or legs alone, is far below that which occurs with out sequestration, and certain operations which with ordinary methods are usually attended with a large loss of blood may be rendered practically bloodless by its use. The method consists in producing hyperemia of the limbs by means of inflated blood pressure cuffs. These are applied to the arms and legs or to the legs alone. It reduces the amount of blood in the head. No hemorrhage occurs after releasing the cuffs. The amount of pressure made with the cuff varied from that needed to produce complete obliteration of the pulse and that needed to produce only a slight change in the pulse.

The cuff varied from that needed to produce complete obliteration of the pulse and that needed to produce only a slight change in the pulse. The nerves were noted. This is explained by the fact that the pressure was distributed over a large area and that it was made by flexible air bag. The pressure was maintained from the end of the induction stage to the time of completing the operation.

By this method the operator is therefore enabled to administer smaller quantity of an anesthetic and obtain full anesthesia. He sees the patient put to sleep without the stage of excitement to stop the administration when the body is brought to the upright position and yet have the anesthesia prolonged enough to permit relatively long operations to be performed to secure a greatly lessened loss of blood and to insure reduction in, and many cases an almost complete abolition of the disagreeable after-effects. It is thus that operations are robbed of their terrors for the patient.

EDWARD L. CORDELL.

Strickland. Injury of the Phrenic Nerve in Local Anesthesia of the Brachial Plexus (*Zur Frage der Phrenicusanästhesie nach der lokalen Anästhesie des Plexus brachialis*). *Zentralbl. f. Chir.* 9, 3, 1911, 597. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The author reports a case in which he had occasion to induce local anesthesia of the brachial plexus in a man 30 years of age. Though in other cases he had always found the plexus very easily here he was unable to find it even after a long search. The patient became restless and complained of severe pains at the point of injection. The operation which was not pressing, was given up and the needle withdrawn without a drop having been injected. The patient went home. Immediately afterwards severe pains began over the entire left side of the breast and gradually increased in intensity. Breathing was embarrassed and the patient felt very sick.

For the next few days the breath sounds on the right side were markedly decreased. There was no fever the pain gradually diminished and after two and one-half weeks disappeared entirely. The author thought first of an accidental intercurrent of pleuritis, but the clinical picture did not confirm this supposition. He thinks it most probable that an anomalous branch of the phrenic nerve was injured by the needle or perhaps there was an unusually high anastomosis with the brachial plexus. At any rate a certain amount of caution should be observed. Anesthesia should not be performed on both sides at the same time and the injection should not be made until the presence of paresthesia is determined.

KULAKOFF.

Roos. Anatomical Investigations of Some Cutaneous Nerves, Important for Local Anesthesia, with regard to the Point at Which They Penetrate the Fascia (*Anatomische Untersuchungen einiger für die Lokalanästhesie wichtiger Nerven an bezüglich ihrer Durchdringung durch die Fascia*). *Deutsche Zeitsch. f. Chir.* 9, 3, 1911, 435.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Roos calls attention to the variations in the point of exit of the cutaneous nerves through the fascia. As a result successful local anesthesia is often rendered rather difficult. To intercept the cutaneous nerves of the anterior surface of the thigh, Roos recommends the infiltration of the operative field as well as the skin and fascia beneath Poupart's ligament and finally the trunk of the femoral nerve should be interrupted. Because the cutaneous nerves vary in this region no rules can be laid down for their injection. The cutaneous nerves of the cervical plexus are anesthetized by infiltrating them at the posterior border of the sterno-mastoid muscle, as they cannot all be reached at the middle of the muscle border as is often claimed. To anesthetize this territory properly the great occipital nerve must be interrupted along its course as well as along the lines *nuchae superior* and parallel with the border of the trapezius as this nerve is in communication with the cervical group.

Hirsch.

Meyer. Local Anesthesia and Anesthesia of Nerve Trunks (Beiträge zur Lokal- und Nerven-anästhesie). *Beitr. z. klin. Chir.* 9, 3, 1911, 590. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The author describes as fragmentary local anesthesia the process of anesthetizing only the skin at first, and then the deeper parts during the operation. This procedure makes it easier to find the large nerve trunks, because the patient can localize it himself if slight pressure is applied over the region of the nerve. Moreover, it sometimes aids in the finding of deep-seated foreign bodies. Meyer also suggests anesthetic solutions in inflamed tissue. He believes that sometimes healing takes place more quickly when this is done, as inflammatory processes are inhibited by local anesthesia. In replacing fractures, he has found it advantageous

to 1 feet anesthetic solutions to the site of the fracture. It also recommends the injection of such solutions into the joints for diagnostic purposes, and in making passive movements in chronic arthritis.

For anesthesia of the shoulder region, he combines Kolenampff's plexus anesthesia with the elimination of the supraclavicular nerve by linear subcutaneous injection along the edge of the sternocleidomastoid muscle. Moreover the intercostal and intercost brachial nerves are cut off by spinal injections. For operations on the hand, he blocks the ulnar nerve at the ulnar epicondyle, the median nerve at the ulnar side of the brachial artery and the radial nerve at the ulnar side of the supinator longus muscle, which is put on tension. The dorsal cutaneous nerve is reached by a linear injection between the olecranon and the radial epicondyle. For operations on the palmar surface of the hand, he recommends the interruption of the three chief nerves in the region of the wrist joint by Braun's method.

LAWRY

Schlumpert Concerning Sacral Anesthesia
Jerg. G. Soc. & Obst. 1923, xvi, 458
By Jerg. Gynec. & Obst.

After short review of the history of sacral anesthesia (Cathelin, Stockel, Lachen and Gros) Schlumpert describes in detail the technique as used at the Freiburg Frauenklinik for low and high extradural anesthesia. A fairly deep Dürmer'schlaf is brought about by giving veronal (1 gm. the evening before and 3/4 gm. the morning of the operation) and scopolamin-scopolophen, some hours before operation. The sacral canal is punctured by introducing a hollow tube into the canal through the hiatus canalis sacralis. First, test fluid (N₂O 9 per cent) is injected to make sure that the sacral canal has been entered; every injection and no subcutaneous swelling should be observed. By lowering the pelvis it may be determined whether vein of the sacral plexus or the lumbar cavity has been punctured—blood or watery fluid will then issue from the needle.

For anesthetizing warm (35° C) solution of novocain is bicarbonate of sodium (Lilwer) is used. Adrenalin is added and, to prevent the adrenalin being oxidized in the alkaline fluid, sodium sulfonamide

For low anesthesia (below the symphysis) 0.6 gm. novocain is considered the normal dose for high anesthesia (abdominal operations) 0.7 gm. More or less is given according to weight of patient, age, cachexia, tetanus, quality of Dürmer'schlaf and probable duration of operation. The doses vary between 0.5 and 3 gm.

The results for low anesthesia are: Duration from three fourths to one and one fourth hours of 4 cases, 1 (25 per cent) the anesthesia as complete while 3 (75 per cent) were failures. For high anesthesia duration about three fourths hours, of 34 cases, 50 (46.5 per cent) were complete, 19 (56 per cent) were failures.

In the rest, some inhalation-narcosis had to be given, the amount being generally small (0–5 gm. ether).

A collateral action consisting of general pallor due to a fall in blood-pressure, was observed for 3 hours. No after-effects (post-operative vomiting or headache) have been observed.

Selfert Résumé of Literature Concerning Atylin (Saxatociferol after Atylin) (Freiburg Abhandl. d. Ges.-Ges. d. prakt. Med. 9, 3, 1923, Suppl.)
By Zentralbl. d. ges. Gynak. Geburtsh. d. Gynäk.

Atylin is an improvement on other anesthetics, according to many authors because it can be sterilized because when dissolved it is very durable, and finally because of its non-poisonous action (one half as poisonous as cocaine). A solution of 3 per cent of atylin is used as local anesthetic in urethra and bladder. In one case according to Gernsach, dyspnea, nausea, vomiting, dizziness, hallucinations and cramps followed an injection of 5 cc. of 10 per cent solution into urethra. In surgery used as infiltration anesthesia with strength of 5–10 per cent Krümer injected 5 to 10 cc. of 10 per cent solution of atylin in the mucosa of the cervix with good results. Atylin is of little value as spinal anesthetic because of headache, backache, nausea, vomiting, collapse, dyspnea, unconsciousness, and retention of urine which follow its injection into the spinal canal. A 10 per cent saline of atylin applied to painful ulcers gives great relief. Atylin is a valuable anesthetic, for it has so many good characteristics and so few bad ones.

JONES

SURGERY OF THE HEAD AND NECK

HEAD

Toussieux and Girey Primary Epithelioma of the 3 parotid Glands (Epitheliome primitif de la glande sous-mandibulaire) Bull. et mem. Soc. anat. de Par. 9, 3, 1923
By Journal de Chirurgie

A man 50 years old in excellent general health noticed gradual growing tumor in the left submaxillary region. On palpation there was hard,

painful mass the size of pigeon egg which was adherent to the deeper tissues but not to the skin. The lymph glands about it rolled under the fingers. The absence of a lesion in the mouth or throat the diagnosis of primary carcinoma of the submaxillary gland was made.

At operation tumor as found hard as adamant and the peritoneum and muscles. Its removal was accompanied by thorough curettage of the

reposition and removal of the tissues and lymph glands involved and of the carotid glands. Three months later the patient returned with local recurrence involving the maxilla floor of the mouth and the thyroid body. The incision was reopened but the operation was unsuccessful as was treatment with copper and radiotherapy.

Histological examination showed that the gland was almost entirely replaced by atypical carcinoma, part of which was glandular and part contained epithelial pearls. There were no pearls in the involved lymph glands.

The authors think this is primary carcinoma of the gland. The presence of the epithelial pearls is explained by reversion of the cells of the gland to their primitive type, which is that of the cells of the floor of the mouth from which the gland develops.

P. MASON

Coughlin. Partial Operation for Carcinoma Involving the Jaw. *Internat. M. J.* 9:3, 45. By Surg. Gynec. & Obst.

This paper represents the best type of contribution to practical jaw surgery. Coughlin takes as his thesis the fact that surgeons are as a rule content to excise a reasonable amount of soft parts that are the seat of cancer but that as soon as bone is involved the operative procedure adopted is usually mutilating one.

The outlook for carcinoma of the jaw is bad enough, the best but it is nevertheless not necessary to remove more bone proportionately than soft parts. Of course there are cases demanding the removal of a whole jaw but Coughlin does not feel that it is possible to frame up specific rules for guidance as to when the more and when the less radical operation is to be performed. The results of partial operation for mouth cancer (removal of the growth with fair margin of normal tissue followed by ethyl cauterization) are better than those following the radical operation (removal of complete segment of the entire jaw) but this may be due to the fact that the partial procedure is essentially indicated in the early cases. The disadvantages of the radical operation are increased shock, mutilating deformity and loss of function. According to the clinical experiences and observations of Coughlin carcinoma invades but less rapidly than it invades the soft parts. After all the crux of the situation lies in making a early diagnosis.

If patient over forty has chancous ulcer or about the mouth suspect cancer. Remove all possible sources of irritation such as jagged teeth, bad plates, rough or loose prosthetic. Keep the ulcer clean, and either have the Wassermann test made, or give anti-syphilitic treatment until satisfied that it is not loeic. A ulcer that does not show signs of healing under 10 doses of potassium iodide and mercury after three weeks treatment, is most syphilitic. Then insist on making section of the edge of the ulcer. Remove small portion,

securing both healthy and unhealthy tissue and have the same examined microscopically by a competent pathologist.

M. G. BREWER

Kettlem. Fibroma of the Maxilla. *Proc. Roy. Soc. Med.* 9:1, Otol. Sect. 53. By Surg. Gynec. & Obst.

The patient, a dairyman age 35, came under observation with a large swelling of the mouth. Two years previously an attempt was made to extract what was thought to be the upper right second molar; the tooth was broken and roots remained. A swelling soon formed which was called a abscess. This swelling led to suppuration. As the swelling increased in size it was incised but no pus was evacuated. When the author saw the patient he found a foul septic mouth with a firm elastic tumor involving the tuberosity of the second buccal pad and the whole alveolar ridge on the right side. The patient suffered no pain and showed no glandular enlargement.

After scaling the teeth the right maxilla was removed. The specimen showed a dense growth in the alveolar region with a less dense free growing mass extending into the alveolus which was practically obliterated. Patho-histological section showed dense fibrous growth of connective tissue.

H. A. POTT

J. Hildard. Sub-dural Intra-cranial Cyst of Traumatic Origin; Jacksonian Epilepsy; Ameliorative Trepanation. (*Kyste intra-cranien sous-dural d'origine traumatique, épilepsie Jacksonienne, trépanation ameliorative.*) *Bull. et Ann. Soc. de Chir. de Par.* 9:3, 335, 334. By Journal de Chirurgie.

The author reports case of serous cyst in the brain of boy 17 years old. This followed a skull fracture received in infancy. The cyst was located in the Rolandic area and extended down to Broca's region. Following the operation the boy improved, but he had recurrence of the epileptic form attacks, which were relieved by withdrawing 50 cc. of serous fluid through the operative scar.

Auvray working for the author collected seventy nine cases of intra-cranial cysts of traumatic origin. These he divided into intra-cerebral and meningeal cysts, the latter into extra- and sub-dural cysts. There were thirty-eight cases of intra-cerebral cysts. Whether single or multiple, large or small, whether containing clear or bloody serum or blood these cysts did not develop rapidly. There is nothing characteristic about their symptomatology. Pathologically these developing rapidly might be due either to transformation of the traumatic hemorrhagic exudate or to the formation of real closed cavities in the pia mater or sub-arachnoid spaces due to cicatricial lacerations which fluid is excreted and from which it cannot escape. The slow forming cysts are on the other hand, due to a degeneration of the brain substance following trauma or changes in the brain following hemorrhage into the parenchyma.

There are three methods of treating these cysts: (1) simple puncture which is insufficient; (2) localiza-

Krause: Brain Surgery (Gehirnchirurgie). *Deutscher chirurg. Kong.* 93.
By Zentralbl. f. d. ges. Chir. 1 Grenzgeb.

The results of the operation for cerebral tumors have not been as favorable lately because of the increased number of operations performed. It is, however, indicated in all cases as soon as suspicion of tumor arises. Tumors of the posterior cranial fossa, those of the cerebellum, subarachnoid and even those of the vault of the fourth ventricle give a fairly good prognosis. His permanent results in cerebellar pontine tumors were especially bad. In forty cases only four were satisfactory. The tumors were always large and involved the pons and medulla rendering the diagnosis very easy. As the diagnosis is relatively easy it is best to treat these cases for operation in the early stages.

Krause operated hypophyseal tumors according to all of the described methods, once according to that of Hirsch. This method requires special rhinological training and offers no advantages to the surgeon. It is to be preferred to Schloffer's method as it leaves no disfiguring scars and does not lead to anosmia. He operated seven times according to Schloffer's method, but was able to remove the entire tumor only six. He therefore returned to his own method of operating through the forehead. A patient operated upon by this method four and one-half years ago for a tumor the size of a plum has lost all symptoms of acromegaly and the meninges have returned. This radical method should always be employed in case suspicion exists that the anterior lobe or any of the neighboring part of the brain are involved.

The author concludes that meningitis serosa of the cord is a clinical entity as several cases have been cured for five years. It also has complete cures of the much rarer serous meningitis of the brain. The incision into the posterior commissure is borne without danger if made in the median line. The author has made this incision several times to locate an intra-medullary disease focus.

VON EISENGARTEN in discussion, said the presence of serous meningitis of the brain is not the cause of severe disturbances and that the disease is diagnosed much too often. Several observations have taught him that it is not essential to remove the entire tumor if operating for hypophyseal tumors.

F 777. 7812.

Walter: The Histological Structure of the Pineal Gland (Über den histologischen Bau der Zirbeldrüse). *Schweizer. Anzeiger f. naturforsch. Gewissch.* 28. 1906. 93. 4.
By Zentralbl. f. d. ges. Chir. 1 Grenzgeb.

Histological investigations of the pineal gland with certain gold stain (the details of which are not given) and with the Bielschowsky stain yielded, in contrast to the results obtained with the ordinary staining methods, extraordinarily complicated structures. The septa of the pia and vessels are surrounded with numerous small button- and

club-like structures attached to ends of very fine strands, causing a dense network. These fine threads run backwards into thicker threads and finally are lost between the cells of the parenchyma. The author believes they must be nerves and nerve endings, which they stimulate staining. Almost all parenchyma cells have a number of these strands the beginnings of which are stained similar to the narrow plasma around the large round nuclei. Alongside these round cells are a few larger cells resembling in part pyramidal cells of the cortex and motor spinal ganglion cells, with abundant plasma, indefinite nuclei and numerous projections. In addition, smaller polymorphous cells with many fine strands are found in the septa, each provided with a club-like end. None of the cells have distinct cytoplasmic cylinder the tigroid substance and the fibrillar structure is missing. The sympathetic character of the cells cannot be discarded without further proof (Cajal made similar observations on rabbits).

It is likely that in every case between 9 and 63 years of age cells will be found that bear a definite relation to the function of the sympathetic nerves of the pia and choroid plexus, probably being of decisive significance in the formation of the liquor cerebrospinalis.

TÖNNER.

Dana and Berkeley: The Functions of the Pineal Gland, with Report of Feeding Experiments. *Med. Rec.* 93. 1903. 835.

By Surg. Gynec. & Obst.

What is known at present of the pineal gland comes from the following sources: Experiments on animals, experiments with extracts of the gland, clinical and pathological studies, and consideration of the embryology and phylogeny. The literature of the diseases of the pineal gland gives some evidence that lesions occurring in the young cause peculiar disturbances of nutrition, such as increased growth of the epiphysis, stimulation of the development of the sexual, the somatic, and perhaps the mental functions.

The pineal gland in man has become a glandular organ with secreting cells and probably a few nerve fibers. It tends to undergo deterioration about the seventh or eighth year but up to that time may be supposed to have some function.

The following experiments were carried out with the glands of young bullocks.

The nucleoproteids and entire gland extracts were obtained and injected into the veins to test the effect on the blood pressure.

They were also injected into young animals (rabbit and guinea pig) for a long time to determine its effect on nutrition.

3. The whole gland was fed to defective and retarded children.

Their provisional conclusions are:

The pineal gland is the vestigium of the special sense organ of vision in invertebrates and certain low vertebrates. In man it has practically lost all the structural characters of a sense organ and has

the lower jaw mid way between the chin and the angle of the jaw but which in the course of the years moved more and more upwards in the direction of the ear. The fistula was continuously discharging. Now and then, homogeneous fluid discharged from the right ear. At the operation which consisted in excision of the entire fistulous tract, it appeared that the fistula opened into the external meatus.

According to the opinion of Klatzsch, the origin of the congenital fistula of the ear is to be traced back to an arrested development or malformation in the region of the first branchial cleft, the fistula taking its origin from an anastomosing peristyle in the region of the hyomandibular cleft. Microscopic examination of serial sections confirmed the diagnosis of hyomandibular fistula and macroscopically by Klatzsch.

VALDÉK.

Marine Thyroidism of the Thyroid Gland.

Bull. Johns H. Hosp. 9, 1907, 35.

By Surg. C. M. Ostr.

The thyroid, while it does not play an essential rôle in our conception of vertebrate life, nevertheless, one of their most constant and characteristic structures—existing in the same anatomical form from the dull cyclostomes throughout all the fishes, amphibians, reptiles, birds and mammals. Marine shows that morphologically the endostyles are fundamentally identical in all. Cyclostomes, fishes, amphibians, reptiles, birds and mammals are the only classes of animals which possess ductless thyroids the follicles of which are structurally identical in all. The most important of the epithelium concerned in the formation of the ductless follicles is that form which is continuous with the lining epithelium of the duct and pharyngeal grooves. Studies in the embryology of the ductless thyroid have shown that, in fishes, amphibians, reptiles and birds, the thyroid arises solely from a median, single, ventral downgrowth of the pharyngeal ectoderm in or slightly anterior to the first aortic arch. In mammals this symmetry of development was believed to be departed from through the discovery by Stieda of the so-called lateral thyroid anlagen from the fourth or more accurately in man, the rudimentary fifth gill pouch but the work in the embryology in the pathology and in the developmental defects of the thyroid during recent years has shown that these lateral bodies which in mammals only become imbedded in the lateral thyroid lobes take no part in the formation of thyroid gland tissue. This solution of the origin of the mammalian thyroid from the single median anlage harmonizes the location and development of the endostyle with the location and development of the ductless thyroid. The thyroid mechanism, therefore, irrespective of the possible phylogenetic relationship to the chordate stem of the several classes of animals concerned appears to have been evolved through a direct line of descent from the tunicates through the amphioxus, fishes, amphibians, reptiles, birds and mammals. The meager evidence of

the physiology in both the endostyle and the ductless thyroid gives no suggestion of an interrelationship or function. Primarily the thyroid is a part of the alimentary tract and in its endostylar form is a digestive gland of great importance through its probable external secretion. In its ductless form it is only the atrophic remnant of its ancestor which, while it has suffered a corresponding distortion of function, still profoundly influences the animal's nutrition through the effect of its probable internal secretion.

GROVER E. DENNEY

Favre and Savy Syphilis of the Thyroid; Its Histological Analogies with Tuberculosis (Syphilis thyroïdienne, ses analogies histologiques avec la tuberculose). *Lyon chir.*, 9, 3, 19, 5, 1.

By Journal de Chirurgie.

The authors report the result of a complete histological examination of the portion of the thyroid removed at operation in the case recently reported (Foncet and Leriche. Macroscopically the lobe which was removed contained about dozen crude gummas. They varied in size from a grain of wheat to about their yellow color stood out distinctly on the sclerotic glandular parenchyma.

Microscopically the interstitial tissue was greatly infiltrated with round cells (connective tissue and lymphocytic type) with here and there new formed capillaries and slightly involved arterioles. At other points this inflammatory infiltration was replaced by large sclerotic bands which crowded out the glandular elements. The thyroid vesicles had completely disappeared at certain points elsewhere they persisted but their cells were swollen and increased in number, and had invaded the lumen, pushing back the colloid substance which finally disappeared. The more extensive gummas appeared like extensive necrotic, amorphous, poorly stained areas in the center of which scarcely any thyroid elements could be recognized. In the younger gummas small islands of necrosis were seen separated by areas of round cell infiltration.

The most interesting point disclosed in these sections was the following: In certain places the inflammatory infiltration was no longer diffuse, but constituted small nodular formations at the center of which the cells had taken on an epithelioid character and which clearly characterized and rather numerous giant cells were present. The origin of these nodules and giant cells was clearly from the interstitial tissues and not from the thyroid vesicles from which they were always separated.

The importance of this observation is stated in the conclusions drawn by the author. That tuberculosis and syphilis of the thyroid may not always be capable of microscopic differentiation and since both may give the clinically a similar picture of ligneous thyroiditis it is quite possible that in the past, cases of so-called tuberculosis of the thyroid have in reality been syphilitic. Differentiation by discovery of the bacillus of Koch or of the spirochete in the section is not practicable since neither are

usually found. The Wassermann reaction and the results of nitrolic treatment must be called upon to settle the question. *Ch. LARSEN* vi

Thoma: I Bilateral Resection or Unilateral Extirpation of the Thyroid Preferable (Beidseitiges Resektion oder eine der Exstirpation des Kropfes)? *Arch. f. Klin. Med.* 3:1 09
B. Zentralbl. f. d. ges. Chir. Gernsberg

The author in opposition to Kausch, prefers unilateral extirpation of the thyroid because the post-operative course is decidedly milder and shorter. After the bilateral edge-shaped excision by the Mikulicz method general pleurisy symptoms of hyperthyroidism appear such as high temperature and rapid pulse because of atresia of the re-

main gland parenchyma / consequence of ligation of the vessels which can not be accurately limited. The healing of the wound is slower and longer accompanied by discharge of secretion and sutures through the drain. In the unilateral extirpation (even under local anesthesia) there is much lighter degree of increase in temperature and pulse rate. It explains this as being due to the slighter amount of tracheitis and laryngitis, what is partly by serous infiltration of the region of the wound and difficult expectoration and partly by disturbance of circulation in the mucous membrane of the larynx because of ligation of the superior thyroid. It reserves resection—that is, wedge-shaped incision from both halves of the thyroid—or cases of diffuse bilateral goiter. *BROOKS* vi

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Guleks: Penetrating Combined Thoracic and Abdominal Wounds (Durchdringende Brustbauchwunden) *Dtsch. Arch. f. Chir.*
B. Zentralbl. f. d. ges. Chir. Gernsberg

In combination of abdominal injuries also strong pulse due to agnathism is present in combined thoracic and abdominal injuries. Other symptoms show the risk of abdominal injuries are frequently absent in combined injuries. Although expert treatment can be employed thoracic injuries the indication combined injury is treated at least the prognosis becomes unfavorable. The author divides the transpleural wound as it is easier to suture the diaphragm from the pleural and than from the abdominal. In four severe injuries the thorax performed thoraco-laparotomy in two simple laparotomy. One case as gunshot wound of the heart and spleen. The patient recovered. In the second case peritonitis resulted from stab wound in the abdomen which entered the seventh left intercostal space and perforated the stomach transversely. In spite of the interference the patient died of peritonitis. *K. TRANSVI*

Brookshanks and Boyd: Case of Congenital Thoracic Deformity. *Proc. Roy. Soc. Med.* 9:3
Sect. The Clinician, 5
By Surg. Gynec. & Obst.

The deformity consisted of large depression in the upper part of the chest and the gap in the parietal wall which is apparently due to the absence of the outer portion of the second, third and fourth ribs. The sternum is asymmetrical and the right upper costal cartilages are bent backward, with marked hernia of the right lung. The deformed area is found to be almost exactly covered by the upper rim. *C. G. GARCIA*

Park: The Thyroid and Other Ductless Glands. *Chir. and G.* 3:10 20
By Surg. Gynec. & Obst.

The thymus is described more fully than other than the rest of the glands of internal secretion. This gland is found distributed through all except the very latest vertebrates. Ontogenetically it appears to be an offshoot of the same embryonic tail from which the thyroid is produced. Normally only the remnants of the thymus can be found by the time the child is thirty months old.

The relation of the thymus to bone development has only recently been emphasized. Whereas the pituitary body undoubtedly has profound influence upon bone development in the more mature years or even in adolescence the thymus seems to influence greatly the same process in the very early years. The condition which is frequently diagnosed as rachitis is many times a case of disturbed thymus secretion. Accondroplasia dwarfing nanism and thymic must all be ascribed to the thymus.

Experimental evidence is not lacking in proving the connection between the thymus and the early development of bone. Klose and his associates found the animals upon which thymectomy had been performed showed tardy development of the epiphyseal cartilages in whole or part would fail to ossify. The bones, moreover, are lacking in mineral elements and are so soft that they can be cut with scissors. Later the flexibility gives way to brittleness and the bones become extremely brittle.

As to exactly how many of the diseases of the bones and joints are due to thymus disturbances it is impossible to present. It is to say but there is strong evidence that many of them are caused by disturbances of internal secretion. Among these diseases are osteomalacia, rheumatoid arthritis, hypertrophic osteoarthritis, osteitis deformans, and possibly the arthropathies of tabes. *J. H. SELLIS*

Wickel Röntgen Ray Treatment of Thyroid Hypertrophy

Clark M. J. 9, 1, 21, 34.
By Surg. (Proc.) & Obst.

The author here reports 1 case so treated successfully and one much improved but still under treatment.

He also discusses status lymphaticus and theories of thyroid asthma and death.

According to the author, involution leads to complete destruction of the thyroid parenchyma begins within three or four hours after the exposure to X rays, the consequent lessening of symptoms.

In the case of the two tumors after the exposure it was desirable to drop the treatment even before the entire disappearance of symptoms, the severity of symptoms must regulate the number of exposures. A short strong exposure of five to eight minutes will accomplish the same results without danger as fifteen to twenty minutes of weak exposure.

Not only does relief in symptoms follow but there is marked improvement in the general condition of the child.

TRACHEA AND LUNGS

Broeckhaert Operation for Tracheal Tumors

(Quicker intervention pour tumeurs de la trachée.) 4. Soc. Belg. d'Chir. 1913, 14.

B. Journal de Chirurgie

In 30 years Broeckhaert has operated on only 10 times on tumors of the trachea. The first case was that of a small child on whom tracheotomy had been performed for croup. Several weeks after the removal of the cannula respiratory difficulty developed and he performed an exploratory laryngo-tracheotomy. A large fleshy growth had developed upon the inner margins of the old tracheal wound. After complete ablation he sutured the larynx and trachea and obtained permanent and rapid cure. Histological examination showed the new growth to be simple granularoma. Stenosis by such tubercular granulations is not very rare.

In the second case the stenosis was due to papillomas of the trachea and larynx. Immediate tracheotomy with an extended laryngo-tracheal incision was performed so as to permit of complete removal of the numerous papillomatous vegetations which completely filled the upper portion of the trachea and larynx. The author then did laryngo-tracheotomy by suturing the mucous membrane to the skin on either side, thus allowing him to observe the larynx and the trachea for the appearance of recurrences. Several times it was necessary to remove new tumors and six months later he closed the opening permanently.

Broeckhaert has had 11 cases of malignant tumors of the trachea, one primary and the other secondary due to an extension of carcinoma of the thyroid. In both cases there was such an extensive infiltration of the trachea that radical operation was impossible. In one the author performed a tracheotomy with partial ablation of the tumor mass. In the other

a tracheotomy was done and followed by the introduction of a long flexible tracheal cannula as an emergency measure. Statistics show that the results of operation for malignant tumors of the trachea in general are not encouraging. Only two cases are known where the trachea was successfully resected, a malignant tumor that of Brun and the more recent one of Schmeigelow.

The last case was that of a man, 32 years of age, who complained of several attacks of dyspnea occurring during the preceding few weeks. Laryngoscopic examination November 9, 1912 disclosed slight redness of the vocal cords and beneath these a rounded ratheroluminous tumor which appeared to arise from the posterior wall of the trachea. It was of pale rose color perfectly smooth and fitted into the lumen of the trachea. A crico-tracheotomy revealed the tumor. It died by a broad base to the posterior tracheal wall and encroached upon the cricoid. It was the size of a large hazelnut. It was removed without difficulty in several portions after which the point of attachment was completely cured. The margins of the cricoid and the trachea were permanently united by catgut suture and the larynx closed by means of Michel's forceps.

The cannula was left in place. Post-operative sequelae were normal and after being convinced that all trace of the tumor had disappeared, and that the movement of the vocal cords was normal, the cannula was removed at the end of the third day. Two months after operation there had been no signs of recurrence. Histological examination of the tumor showed it was a lobulated fibroma.

Schurman's The Operative Treatment of Lung Embolism

Embolism. Beiträge zur operativen Behandlung der Lungenembolie. Deutscher Chir. 1913, 19, 3.

By Zentralblatt für Gesamte Chirurgie. Göttingen.

On the basis of three lung embolism cases operated according to Trendelenburg by Sauerbruch and Schmauch, the Zürich Clinic and several observed fatal cases of lung embolism Schmauch differentiates the symptomatology and diagnosis of large pulmonary emboli and the indications and technique of the Trendelenburg operation. He emphasizes the difficulty and even impossibility of differentiating between pulmonary embolism and certain rapidly fatal cases of cardiac origin, especially myocarditis. He differentiates three forms of death in pulmonary embolism: (1) the almost instant death from shock, (2) the very rapidly resulting death of large emboli obstructing both branches of the pulmonary artery, (3) the death occurring many minutes, even hours, after a protracted case of embolism.

In so far as operative indications are concerned the author believes that in rapidly progressing cases no duty lies in attempting interference, as recovery may occur in some one case. In these cases the natural relations are also favorable for the extraction of an embolism. In the protracted cases, one is justified in resorting to operative interference when, in spite of stimulation, aggravation of

the conditions occurs. It occurred in 1 case the appearance of creaking pulmonary rales, which gradually disappeared as the heart weakened. Perhaps this disappearance of the rales is an indication not to delay the operation any longer.

Friedrich: The Effect of Extensive Resection of the Thoracic Wall on Marked Pulmonary Emphysema (Rückwirkung einer umgehenden Brust- und Rippen-Resektion bei hochgradiger Lungenemphyse). *Deutscher Arzt Kongress*, 9.

By Zentralblatt für Chir. I. G. G. G.

Friedrich discusses the remarkable retrogression which occurred in a case of marked pulmonary emphysema after an extensive resection of the thoracic wall.

The patient, a Russian coachman, fifty-four years old, suffered from high grade pulmonary emphysema, but he had lost it as admitted the loss on account of peritonitis as a complication extending from the right second intercostal space to the right sixth rib. There was a large, rounded, hard mass. The raypect showed no pulmonary metastases but numerous calcified bronchial glands. The heart, all a opened under local anesthesia and after sufficient pressure and the emphysema was resected. The result of the defect was a long resection of the third fourth sixth and seventh ribs an area about 20 x 10 cm. The tumor had bulged the parietal pleura and a narrow band of adhesions led to the mediastinum. At the pulmonary root of this band several metastases were found in the lung. The lung brought forward and others were found free from metastases. The metastases were removed with ligatures. The skin flap as closed tightly and he was forced out of the thorax. A dressing was applied but a latent pneumonia set in in the operated portion of the lung (otherwise there was complete primary union).

During the follow-up period, the patient improved in the emphysema manifest itself. Thus, of course, he has been able to work. Friedrich believes that all due consideration was given to the removal of the extensive defect which the respiratory and expiratory excursion of the lung could be followed closely as effect as produced such as occurs in Freund's method of resection or division of the ribs permitting greater mobility of the large area of the lung. This improvement in circulation. The entire result could be in harmony with the theory developed by Freund to explain the operative result obtained in emphysema of the thorax.

PHARYNX AND ESOPHAGUS

Liebanitz: Chronic Inflammatory Stenosis of the Cardiac Region of the Esophagus (Lesions inflammatoires chroniques de l'isthme cardiaque de l'oesophage). *Thèse de doctorat*, Paris.

By Journal de Chirurgie.

The author holds views on the etiology of the so-called idiopathic spasms of the esophagus which are

quite at variance with those usually accepted. While certain cases may still be considered idiopathic, the greater number of primary esophageal spasms have according to the author a very definite etiology.

The first step in the mechanism, he considers to be the formation of an erosion in the cardiac (more exactly diaphragmatic) portion of the esophagus. Numerous factors may lead to the formation of this erosion, notably alcoholism, excessive use of tobacco, too highly seasoned food, gulping of large pieces of food, esophageal varices, etc. The erosion once formed leads by reflex path to esophageal spasm, which in turn prevents the healing of the erosion, processes entirely anomalous to those observed in anal fissure and, as in this case, the erosion may be so small as easily to escape observation during esophagoscopy.

Biopsy obtained during esophagoscopy are cited as yielding anatomical details of these erosions. They are inflammatory lesions of the mucosa and submucosa, easily distinguishable from cancerous processes. The old methods of investigation of these cases, that is, intubation and catheterization, are now supplemented by the X-ray and the esophagoscope. Radiography may lead to mistaken diagnosis of esophageal stenosis when one remembers that in normal subjects the bicuspid may remain stationary for some time in the diaphragmatic region. The esophagoscope shows the local lesions in the cardiac region. One of three stages may be present: irritation, ulceration, or granulation; sometimes, also, cicatrization may be seen. The course of the affection is very slow; it lasts months or years and affects the general condition of the patient only by the difficulty that it interposes to alimentation. The prognosis is not very serious. When such inflammatory stenosis is in the stage of granulation, it may macroscopically closely resemble a cancerous process. Biopsies obtained through the esophagoscope are decisive.

Therapeutically Liebanitz advises gastrostomy, which allows the nourishment of the patient and procures functional rest for the esophagus; later the various methods of esophageal dilatation may be employed.

AMERLIN

Meyer: The Surgical Treatment of Cancer of the Esophagus. *Med. Rec.* 9, 1, 1904, 555.

By Surg. Gynec. & Obst.

The first question that arises in the mind of every physician is, What results have surgeons to show us to-day? He then asks an patient by resection of the esophagus for carcinoma. The surgeon may rightly turn around and ask, Can the physician give such a patient any hope whatever? The fact is, that the medical treatment of the mortality must be 100 per cent. On the other hand, amongst the fifty and more cases of intrathoracic resection two patients have lived 14 and 7 days, and the cause of death in these cases as lung complication. The author considers the subject from a broader point

of view and discusses briefly the division of responsibility between family physician and surgeon in the task of saving the life of patients afflicted with cancer of the esophagus. He contends that the disease is absolutely an operative one and should be turned over to the surgeon as soon as the diagnosis has been made. The reasons for this statement are:

The comparative benignancy of the trouble, chalcally.

1. The bright outlook after operative treatment in early cases.

2. Up to the present time no surgeon has had a chance to operate on a case under really favorable circumstances.

The author mentions briefly the method of making the diagnosis in cancer of the esophagus, emphasizing the necessity of an early diagnosis, and then discusses the latest improvements in esophagoplasty especially with reference to Jannu's new operation in which a part of the major curvature of the stomach is dissected and formed into a long gut-like tube. It serves simultaneously as gastro-

tomy and inferior esophagoplasty. He believes it best to place the tube subcutaneously. A further point he emphasizes is, that no further efforts should be made to secure air and water-tight the upper stump of the resected esophagus which was formerly left within the thorax. It should, in every instance, be transposed extrathoracically from above downward in the direction of the Jannu tube. If it is long enough, both ends can be united by suture and therewith the esophagoplasty completed. If too short a skin plasty must bridge the defect.

In conclusion he once more dwells on the fact that patients complaining of difficulty in deglutition must not be treated expectantly. Two successful cases of esophageal resection for carcinoma are cited, the first by Zaalzer who reported a successful case of carcinoma of the lower portion of the esophagus and cardia the second by T. Reik, who succeeded in curing a patient with cancer of the esophagus situated behind the aortic arch. Both cases were operated upon in the early stage, at a time when both pneumogastria could still be dissected off

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Marlen: An Oblique Transverse Incision for Operations on the Gall Bladder and Bile Ducts (Incision oblique transversale dans les opérations sur la vésicule et les voies biliaires). *Union méd. du Canada*, Montreal, 9 2, 1911, 7.

By Zentrabl. f. d. ges. Chir. 1. Gressgub.

The author recommends the laparotomy incision on account of its simplicity because it offers good exposure of the field of operation, and because the soft parts are not injured. The incision commences at the right costal arch between the eighth and ninth ribs and runs obliquely to the umbilicus and if necessary can be carried downward in the median line. After cutting through the skin, external oblique and anterior sheath of the rectus, he enters the abdominal cavity at the level of the inscription tendons between the two muscles either with sound or with the fingers and separates them bluntly in vertical direction. The size of the incision in the posterior sheath and peritoneum depends on the amount of room necessary to perform the operation. The incision permits thorough inspection of the liver, gall-bladder and bile passages, pylorus and neighboring parts of the stomach, the head of the pancreas, and the right kidney. *Nitrogen.*

Enderlen: The Subject of Peritonitis (Geschlechtskrankheit und Thesen zur Peritonitis). *Beitr. z. Chir.*, 9 2, 1911, 593.

By Zentrabl. f. d. ges. Chir. Gressgub.

At the 8th Annual Surgical Congress the consensus of opinion in regard to the therapy of peritonitis was that it is not advisable to wait for the development of classical symptoms, but to remove rapidly the

source of the peritonitis under a general narcosis. Drainage, especially toward the pouch of Douglas, moderate tamponade and wide-open wound are the essentials. Irrigation should be employed only in diffuse peritonitis complicated by a flooding of the cavity with bowel contents, and then with evacuation. For the after-treatment are advised the exaggerated Fowler position, rectal or intravenous sodium chloride infusions, and camphor. The introduction of sugar and camphorated oil into the peritoneal cavity is of questionable merit. *Horn.*

Whitlocks: Two Successful Cases of Operation for Strangulated Inguinal Hernia in Femal Infants, of the Ages of 22 and 17 Days. *Proc. Roy. Soc. Med.* 9 3, vi, Sect. Dis. Children, 90.

By Surg., Gynec. & Obst.

These cases are exceptionally interesting. The points of interest can be summed up as follows:

1. The early ages at which strangulation occurred, and with apparently no definite cause.

The unusual nature of the hernial contents in the one case an ovary and tube as well as small intestine in the other an unduly mobile cecum with large appendix measuring $3\frac{1}{4}$ inches.

3. The successful issue in each case even after the obstruction and symptoms of strangulation had lasted for over three days.

4. The absence of post-operative shock after a general anesthetic and herniotomy and in the younger infant after appendicectomy in addition.

Herniotomy for strangulation in such young infants must be exceptional, and successful appendicectomy at the age of seventeen days is certainly so.

C. G. GUTLER

Santini A New Plastic Aponeurotic Method for the Cure of Direct Inguinal Hernia (Nouveau metodo di plastica aponeurotica per la cura delle ernie inguinali dirette) *Rivista di chirurgia e ginecologia* 9, 3, 1909, 20

By Zentralblatt d. ges. Chir. 1 Gruzneb

The author employs as radical operation for the cure of direct inguinal hernia the following method designed especially for the purpose of re-inforcing the posterior wall of the canal. The various steps are given.

Incision is made from the spinous anterior process of the lumbar vertebrae to the pubis.

The peritoneum of the internal oblique belt between both rings is severed.

The cord is lifted up the fascio-transversalis is opened the sac dissected opened tied off and removed.

A pedicle flap in the form of a pedicle is made of that portion of the internal oblique muscle which lies above the divided portion of the muscle. The pedicle of the flap lies along the incision of the divided peritoneum.

The flap is turned down and onto the floor and sutured to the transversalis fascia with silk.

The sutured tendons of the Psoas and Ligament are the sutured as according to B. and N.

The cord is replaced and the skin closed.

The author has succeeded in operating on cases of direct inguinal hernia by this method. He has

Prutz and Monier Surgical Diseases of the Intestines of the Mesentery and the Omentum (Die chirurgischen Krankheiten des Mesenteriums des Darmtraktes und des Netzes) *Deutscher Chir. Wochenschr.* 4, 3, 1909, 1, 1

By Zentralblatt d. ges. Chir. 1 Gruzneb

Prutz chapter on development of the mesentery and omentum. The most important development of the mesentery is the invagination of the loop of the intestine and the interlocking of the upper and lower loops in the large gut. The mesenteric development is of the type of Prutz. The mesentery is formed from the embryonic mesentery.

Regarding the etiology of hernia duodenojejunalis intra et extra and of hernia teresmesenterica Prutz theories differ in some respect from those of Treitz. The predisposing factor for hernia is the invagination of the mesenteric loop. The invagination of the mesenteric loop is caused by the invagination of the mesenteric development. Such invagination leads to the formation of folds on the superior surface. According to Prutz, this fold is formed simultaneously with the secondary fold by the shifting of the peritoneum against underlying structures, thus producing peritoneal folds of the type of the form duodeno-jejunalis Treitz.

The question of the relationship of this fold to the mesentery for the author replies that he recognizes no definite connection between the fold and the fold. Surgically the author classifies the most significant deviations from the normal location

depend upon insufficient secondary fixation of the different segments of mesentery to the posterior abdominal wall.

The author states that the only hernia of the omentum are the hernia foramen Winslow and the hernia burse-omentalis. The diagnosis of these hernia is not real hernia as never definitely made before the operation. The differential diagnosis between the hernia duodenojejunalis Winslow and the hernia duodenojejunalis of the right and left side is very intractable. The chief difference is that in the former there generally no hernial sac and both large and small intestines are involved. In the latter there is a sac which contains gas and only the small intestine is involved.

The openings and fissures of the mesentery and the omentum are either of congenital or traumatic origin. In the former case they are most frequently found in the lower part of the drum. In the latter case they follow hernia of the abdominal contents, or operation such as gastroenterostomy resection of intestines etc. As of special interest is the point of the connection between the human uterus, uterine and the openings of the mesocolon transverse. The openings have appeared at the same time in the lower omentum are due gradual rarefaction caused by the continuous traction exerted by the intestinal loops. The author reports cases of openings in one or both locations without the presence of gastric ulcers. The most frequent cause of these openings is the gradual atrophy of the tissues. The mechanical pressure that pressing the thorax tend to increase compresses the mesentery to pressure and elongation of the mesentery. These injuries are often secondary the gas being the main point of attack. The author then discusses the various kind of forces that cause these injuries and influences of an atrophic and infectious nature the different kinds of wounds of the mesentery especially those resulting from prostatic diseases of the abdominal wall.

Then follows review of animal experimentation etiology, symptomatology, diagnosis and prognosis of injuries. Hemorrhage is its local and general sign constitutes the only early symptom of mechanical injuries. The positive diagnosis of isolated injuries is impossible. The author states that therapeutic principles demand unconditional operative interference. While the prognosis is nearly always grave in cases left for spontaneous recovery the prognosis in the prototype operative cases is very good. The operative cases the author also mentions the empty replacing injured mesentery by omentum. Such transplantsations of omentum should not be done in lieu of resections of the intestines, but in emergencies they are of great aid. The isolated injuries of vessels within the range of the radiomental are all due to penetrating wounds and affect the vasa mesenterica superior exclusively. The author states that it is not permissible to ligate the trunk of these vessels.

After discussion of omental injuries the author dwells upon the traumatic cysts of the omentum. Of the inflammatory diseases, the author mentions the cut suppurative infections first. The diffuse suppurative inflammations predominate in this class of cases. Locally thrombophlebitis and lymphangitis play an important part. The author emphasizes the fact that in perityphlitis propagation of the infection generally occurs in the nodes radiating from the mesenteric and in the lymph channels of the mesentery. The critical location of all suppurative processes is the abdominal region. When chills indicate continuance of the infection it is a happy operation for appendicitis. The author recommends, as does Wilms, the ligation of the veins. This is begun at the outer border of the omentum, cut through between the mesenteric and ileal and carefully isolates the arteries before ligating the veins. Chronic inflammations of the mesentery follow prolonged mechanical and hemal irritations, as in cases of belching (chronic mesenteric distension). Chemical irritations in various locations are due to chyme passing within the gall bladder according to the author's belief. The author differs with respect to peritonitis, hemorrhage, mesenteric and mesenteric chronic orchitis, the origin of the inflammatory process. The author states the inflammatory lumps of the omentum (so thoroughly described by Braun) which occur after hernia, may be the cause should be treated as infection, minor and chronic course. The author suggests in this condition the term "pyloric infection" or "pyloric". Direct inoculation is the etiology. For in cases that develop an operative exfoliation as sequel to ligation of the omentum, and so that infection if it follows, intra-abdominal suppuration. The latter is the result of inflammatory diseases of the mesentery and the site of the suppurative process and sometimes as a transitory nature. The treatment of it more being favorable prognosis should be conservative according to Prutz.

Tuberculosis affecting the central layer of the mesentery is found in the lymph glands, the trunk of the infection being in the intestine. The intestinal mucosa is not always tuberculous in such instances. A simple laparotomy as in peritoneal tuberculosis is recommended as therapeutic at least by the author. Actinomycosis of the mesentery has not been found, syphilis very rarely but actinomycosis of the omentum as relatively frequent owing to invasions from the intestines. In cases exhibiting mental tuberculosis, there is general, extensive tubercular process affecting other intra-abdominal organs. The real domain of the tuberculosis affecting the omentum, is the tuberculous peritoneum. Prutz classifies torsions of the omentum as those with and those without hernia. The essential importance of these hernia is the structural changes brought about when the omentum is found in the hernial contents. Chronic peritoneal processes also cause such omental alterations. The

omentum becomes lumpy. The author does not agree with Payr and his experimentally proved hemodynamic theory according to which the engorgement of the veins causes the omentum to become twisted. Prutz states that the veins are engorged because they become twisted in common with the omentum. Both observers agree that mechanical influences are operative in these cases, especially the movements of the abdominal parietes. Clinically Prutz believes that in most cases when a right-sided hernia of the groin suddenly becomes irreducible or incarcerated it is a sign of a twisting omental torsion. The *McCrill* in such cases with hernia and the *appendicitis* in the cases of omental torsion without hernia are the most prominent symptoms hence are also most emphasized in the diagnosis.

Aneurisms — the region of the three large arteries leading from the median dorsal mesentery to the alimentary canal (coeliac axis) are very infrequent. Aneurisms in this area would be types of the mycoembolic aneurysms of Eppinger. These tumors grow spasmodically and generally hemorrhage is their fatal termination. Embolism and thrombosis in this location are discussed and also the operative prognosis. Spengel's theory assuming simultaneous closure of arteries and veins in anemic infarcts as being independent is not in accord with the view of the author. The diagnosis is very difficult, the rapid pulse suddenly appearing as emphasized by Matthes, is also diagnostic of the acute abdominal diseases. Even a previous bloody stool (perhaps a very slight hemorrhage occurring on only) may be difficult to establish as of diagnostic importance.

The cysts of the mesentery are classified by Moenier according to the anatomic condition of their walls and according to their genesis and not according to their contents as cysts of lymphatic origin (lymphangiomas, chylangiomas), hematoceles whose contents become bloody as a secondary process, echinococcus cysts, enterocysts, dermoid cysts and cysts of separated sperms of the urogenital tract. The solid tumors of the mesentery Moenier divides into lipomas, fibromas, sarcomas and carcinomas. Cysts are most frequent in the ileal region, their constant symptoms being compression of the intestines and of the blood vessels. Therapeutically it is a question of marsupialization and cauterization. Sarcomas arise either from subserous connective tissue or from lymph glands, carcinomas from the endothelium of the lymph glands and the lymphatics (endothelial carcinoma). Cysts and tumors of the omentum are similar to those of the mesentery. Moenier divides them into cysts of lymphatic and traumatic origin, echinococcus cysts and dermoid cysts, lipomas, fibromas, sarcomas, and carcinomas. Any neoplasm special information in regard to the surgery of the mesentery and omentum will find the work of Prutz and Moenier a mine of dependable information.

disposing, the primary cause being irritable the colon bacilli has been found in pure culture at the base of bronchial ulcers of the stomach. The diagnosis after bismuth meal is made by the skiagraph and fluoroscope. The article contains many good reproductions from the skiagraphs.

Many ulcers persist for years unrecognized by the patient. A few cicatrize completely leaving a scar with a ring around the pylorus. Great chronic gastric ulcers become cancerous, all such cases showing intestinal stasis with distended duodenum.

The author thinks that by an early recognition of gastric and duodenal ulcer with intestinal stasis many cases of cancer not only of the stomach but of the ileocecal and gall tract may be avoided and that the greatest help in these cases is the X-ray.

H. A. PERRY.

Friedenwald. On the Frequency of the Transition of Ulcer of the Stomach into Cancer.
Bull. N. Y. Acad. Med. 1903, 79: 700.

By SENG CHOW & OSHI.

Much interest has been manifested in recent years regarding the frequency of the development of cancer of the stomach upon the scar of an old ulcer. Various authors differ widely concerning the frequency of transition of ulceration into adenomatous proliferation. Statistics that it occurs in 3 per cent. like Wilson and Macfarlane place the figures at 7 per cent. Recently Petersen has discussed the subject and while he does not deny the possibility of transformation, he is doubtful as to the frequency of this transition. He offers clinical and pathological evidence to support his view. The author then discusses briefly the work of Kocher, Rehn, and Jacoby.

Aschoff calls attention to the surprising fact that a large number of chronic gastric ulcers termed callous ulcer by the surgeons which are apparently ordinary gastric ulcers, appearing macroscopically as cancers are really not ulcers degenerating into cancers but cancers transformed into typical ulcers. The typical appearance of an ulcer is regularly observed in the callous ulcers while on the other hand diffuse cancerous infiltration appeared at the base as far as the serous coat with relatively slight cancerous development in the borders, from which it can be definitely concluded that primary carcinoma with secondary ulceration existed.

The author then reviews one thousand cases which have come under his observation. A history of some previous digestive trouble was obtained in two hundred thirty-one cases, or 31 per cent. In this number there were one hundred ninety who had slight attacks of indigestion for period of five years or more preceding the present gastric disturbance. While twenty-five had slight attacks only during the last five years preceding the present disease. Of the remaining one hundred twenty-three cases, thirty-two had chronic indigestion all of their lives of which twenty-nine had chronic in-

digestion mainly during the last five years preceding the present illness. Seventy-three cases gave a definite history of gastric ulcer. It is therefore evident that in one thousand cases, but twenty-three per cent present a history of previous digestive disturbance, however even in the slightest degree and that but 7.3 per cent gave a direct history of ulcer. If therefore all of the former digestive disturbances be considered as due to ulcer the formation of gastric cancer from ulcer could not have taken place in more than 3 per cent. If all of the cases with slight digestive disturbances be regarded in his series, this percentage is reduced even to 1.3 per cent. From these cases the author comes to the conclusion that while gastric ulcers are at times transformed into malignant growths the change does not take place in more than 3 per cent of the cases and even this proportion is too high.

EDWARD L. CORNELL.

Simon. Contribution to the Treatment of Perforated Gastric and Duodenal Ulcers (Beitrag zur Behandlung der perforierten Magens- und Duodenalulcera). *Beitr. Klin. Chir.* 1903, 1: 1, 100.

By Zentralabtl. d. ges. Chir. u. L. Grougeb.

The author deduces from study of fourteen cases the fact which are of importance to the outcome of perforated gastric and duodenal ulcers and in this connection discusses the value of jejunostomy as recommended by von Eiselsberg in 1906. In consequence of the rapid onset of peritonitis the perforation of gastric ulcers cannot be distinguished from that of other hollow viscera the anamnesis, which is only too often typical, must be considered thus in eight of the fourteen cases probable diagnosis was made while three gave no history whatever of gastric disturbance. The increase of the existing pain, the author designates as warning precursor.

He describes a case in which the question of fresh perforation or warning precursor remained open. Laparotomy disclosed an ulcer duodeni, almost perforated with surrounding inflammation and tendency to adhesion. Rectus rigidity was absent.

In this case whereas it is never absent in an actual perforation. Only direct trauma is of importance. Whether a full stomach plays a rôle is doubtful, as perforations also occur at night. The perforation may produce little more than simple irritation to those of diffuse peritonitis. Sometimes the sudden onset of severe pain in the upper abdomen followed by syncope is of value in the diagnosis. A perforated appendix does not pursue such a stormy course. ruptured it be differentiated by the history, the viscosity of the blood and the appearance of the patient. In older perforations the presence of peritonitis only can be determined. Since the peritonitis is more right-sided in both duodenal ulcer and appendicitis, the history must be utilized in the differential diagnosis. The ulcer was found on the anterior wall in three cases, the posterior wall in 3 on the pars pylorica, the middle and the cardiac part in 4 each. In two cases there were duodenal ulcers,

The perforations which are primarily small, are much larger through the floor of the gall bladder than elsewhere, although they are in the same line as the actual ulcer. Multiple perforations are not observed. In recent cases, the abdominal wall is not observed. Fluid was found in the abdominal cavity. In some cases the fluid is more purulent, and is obtained after 3 hours pouring out those particles or biliary fluid is not found. The presence of gas points to the stomach as the source. The purpose of the operation is to remove the source. The purpose of the perforation is to clean up the abdominal cavity and increasing the patient's strength and his general condition.

Of the operative methods the most employed is a fold of omentum over the pylorus, a gastro-jejunal anastomosis. The advantages of this are the immediate intestinal action, and its simplicity. The tension in the suture line is less elevated but this is not so important when the hyperacidity is diminished. The gastric juice is diminished and the curvature with stenosis, provided the general condition is good. According to Petén the results of those operated in the first hours are saved and one third of those operated later. The records 66% per cent of cures, deducting duodenal ulcers in which the prognosis was poor. Petén reported 5 per cent of cures and Bruch 9 early in 1901.

Von Miesbach Gastric Ulcer in the New Born
 (Magen-schwüre bei Neugeborenen)
 W. Miesbach, O. & L. 1861
 R. Ziemann, O. & L. 1861

The stomach of girl infant, who died on the fourth day revealed in its mucosa numerous ulcers varying in size from dot to lentil. Epithelial defects were seen microscopically. The submucosa was exposed and infiltrated. The affection was the expression of grave catarrhal inflammation which also caused general icterus.

Neubrier Pylorospasm and Gastric Ulcer (Über
Pylorospasmus und Ulcus
Ifischer 23.1.760 contrah). Mischers and

By Zentralbank Ltd per Char i Gressent

In a review of 20 cases operated during the last 5 years, the author has determined that there are cases in which the Maudslayi sign (six hours stomach rest) is not diagnostic of gastric ulcer. The author agrees with von Bergmann that the ulcers of the lesser curvature and those of the anterior and posterior walls are especially liable to induce pylorospasm. He then describes a case of pylorospasm in which the symptoms and the operative findings—small callosities of the lesser curvature and

rigidly stenosed pylorus — led him to speculate carcinoma of the pylorus. The specimen is resected according to Kocher's method, the trace of carcinoma or ulcer. The lower curvature healed after that and the conclusion is that the elimination of the pylorus not the altered chemism as obtained by pylorostomy produced the cure of the ulcer.

Daube Contribution to the Study of Some
Tuberculous of the Pylorus (Canadian
l'étude de la tuberculose ulcéreuse du pylore, la
de mail, de l'appr. d'hist. et de microsc.

By Journal of Cases

A young man, 8 years of age, ignored his good health up to April, 1909 began at that time to rapidly lose weight and to suffer from physical changes which quickly became more and more pronounced. He complained of feeling of weight after eating and later of vomiting. The vomiting was frequent and abundant. It came on several hours after meals and was repeated. There was, nevertheless, no loss of appetite. Upon examination there was general adenopathy. The lungs were clear. There was slight epigastric tenderness. The most prominent feature was bulging of the abdominal wall in the upper part. There was no respiratory distress. The tumor was mobile with respiration. Periodic vomiting was observed.

Relief: The stomach appeared as a mass lying entirely in the left side; the horizontal pyloric portion had but a minimal capacity and was practically invisible. Second examination, eight hours later showed retention of liquid in the stomach and the presence of distinct contractions.

Gastric juice free by hydrochloric acid, very little pepsin total chlorides 0.594 per cent no blood fermentation acids. For one month the patient was treated by large doses of hydrochloric acid, repeated gastric lavage and rest in bed. He gained thirteen kilograms in weight, and thought himself cured. Three months later he returned with ascites, which was evacuated by laparotomy, proved to be tuberculous. The cachexia persisted and the patient died soon after.

Ampy Tuberculous peritonitis perigastria and tuberculous granulations on the peritoneal surf of the stomach. About the pykosis there as present sort of ring / cartilaginous consistency. There as no histological examination. In spite of this important lucuna, the thor classes his case among those of tuberculous granulations of the stomach, such evolve much like cancer but are more common among young people. J. Ousanic.

Pl. ek Duodenal Ulcer (Klinischer Beitrag zur Kenntnis des Ulcus duodenale) Arch f Linderstg. 5. 1. 97

Thirteen cases are reported, eleven being men between twenty and forty and two women between

fifty and sixty. All were operated on (gastro-enterostomy, pylorotomy) and the diagnosis was confirmed in each case. A very exact analysis was made of the thoracic case histories, as to occupation (stooping position) preceding infection, especially syphilis (Wassermann negative in all cases), disease of the stomach in the family, diet (vegetable or meat), alcoholism, abuse of coffee and tobacco, and trauma (skin to road). Among the most important symptoms as pain, the so-called hunger-pain, appearing three to four hours after taking nutriment and hampered (1) by the periodicity (2) by appearance during the night (3) by growing better or worse nutriment and peculiar positions of the body (4) by decreasing summer (5) and by the presence of pain ful area under the right costal arch (6) the level of the eighth thoracic and first lumbar vertebra. These characteristics varied in different cases. Frequently there was eructation and mitting (three times blood) yes before the appearance of pain. (Result bleeding demonstration of four times examination of stomach contents showed the amount not to be normal six times and increased eight times. The hemoglobin content of the blood, in eight cases, varied between 85 and 100 per cent in five cases, between 55 and 85 per cent.

Röntgen examination was of special diagnostic value as it showed the ulcer in eleven cases out of thirteen. This examination showed pyloric insufficiency in four cases, pyloric stenosis in three and pathological changes in the duodenum in three. Food residue in the duodenum after seven hours by peristalsis and localized pain on pressure or as noted five times. Leube treatment for ulcer did not give good results. The operations were performed thus the past six to seven months, so ultimate results can not be given however subjective pain decreased and there was an increase in strength and capacity for work. One woman died, seven months after the operation, from ileus, resulting from the formation of fibrous bands at the gastro-enterostomy wound. The ulcer as located in the ascending part of the duodenum in eleven cases in the descending part above Vater papilla in one, thus, in all cases it was found above the bile ducts. One case showed dilatation of the horizontal part because of adhesions between the horizontal and descending branches. The author mentions as points in the differential diagnosis between stomach and duodenal ulcer that the pain of duodenal ulcer generally decreases on motion and that the temperature is lower. In conclusion the thirteen case histories are given.

SCHMIEDER

Schmieders Duodenal Ulcer (Ulcer duodeni)
Deutsches Med. Sem. 1913
By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The author studied the pathogenesis of duodenal ulcer in Bier's clinic. It is his opinion that study of the findings of operation, together with the clinical observations, lead to the most reliable conclusions.

The constant bluish shadows so frequently observed in the upper part of the duodenum on radiographical examination in duodenal ulcer offer an important hint as to the etiology of the condition. The duodenum should let its contents pass very quickly. The constant presence of old chyme leads to irritation and ulcer formation in places predisposed to it. In the first place the change in form of the stomach resulting from ptosis causes the upper part of the duodenum to bend at an acute angle and leads to retention of its contents; moreover this bend prevents the entrance of the neutralizing alkaline intestinal juices. Duodenal ulcer thus seems to be indirectly caused by the upright position of man. There is a second change in the form of the stomach in duodenal ulcer which consists in fixation of the pylorus to the right. The author thinks that this change should not be regarded as a consequence of the duodenal ulcer but as the pre-existing and a accompanying cause of it. Heretofore the duodenum remains full for an abnormally long time. It is used by the formation of pericolic and pericholecystic fibrous bands which limit the motility of the pyloric region. In such cases the duodenum cannot relieve itself by peristaltic movements. When once peptic ulcer has made its appearance it lays its retina content in its depths.

I look for these changes, heretofore cause and effect have been interchanged. Analogous to the changes described above are found frequently in the remainder of the intestinal canal. The author believes that by the careful use of the Röntgen ray and critical observation of operative findings other operations will soon confirm his conclusions, and he calls attention to the fact that digestive hypersecretion, hyperacidity and the spastic condition of the area around the ulcer — which von Bergmann also concerns — can no longer be regarded merely as symptoms of the disease but that they play a part in its causation.

Myo Pathologic Data Obtained from Ulcers
Excised from the Anterior Wall of the Duodenum
on the 1st Surg. Phila., p. 118, 60
By Surg. Gynec. & Obst.

The pathological examination of ulcers excised from the anterior wall of the duodenum reveal few of the characteristics of gastric ulcers. Chronic duodenal ulcers usually occur close to the pylorus and formerly when discovered either at operation or autopsy were believed to be pyloric in origin and were classified with gastric ulcers. A gastric ulcer is punched-out defect in the mucous membrane which is sclerosed, grayish white, base surrounded by thickened margins of somewhat overhanging mucosa. Ulcers of the anterior wall of the duodenum with obstruction and callus, post-excision may show a defect scarcely larger than a dimple, which resembles a little split in the mucosa. It is sometimes surrounded by an area of thickened congested mucous membrane like a patch set in the duodenum. The mucous membrane of the duodenum above the

common duct is smooth, thin granular and has few folds. It may be this anatomical peculiarity which prevents the development of thick ulcers of the gastric type that are found on the peritoneal surface which gives the thickness necessary for the base of the ulcer. Ulcers of the posterior wall of the duodenum present the same characteristics as those of the stomach, e., clean-cut definitely punched-out, well attached closely to the pancreas and usually completely perforating the duodenum. They are protected posteriorly by callus which forms the base of the ulcer. In such cases, however, anterior contact-ulcer will usually be found just opposite the lesion in the posterior wall. After excising an anterior ulcer, second may occasionally be discovered posteriorly which has been concealed by the pyloric ring, the ulcer on the anterior wall evidently being secondary and due to contact. The excision of posterior ulcers of the duodenum is so difficult as contrasted with gastro-enterostomy that, although patients recover and remain well, no is not encouraged to continue the practice.

In the author's opinion, therefore, the excision of duodenal ulcers should be limited to those occurring on the anterior wall. The pathological findings in these ulcers of the anterior duodenal wall demonstrate just why this type of ulcer probably is overlooked in the average routine examination of the duodenum at autopsy. The findings also explain why the diagnosis of chronic ulcer of the duodenum may not be demonstrated by the X-ray. The X-ray however has been a valuable means of diagnosis in the cases of gastric ulcers and those ulcers of the duodenum accompanied with obstruction, not because of the actual demonstration of the ulcer but by the determination of deformities and perverted muscular function.

Deaver: Acute Perforated Duodenal and Gastric Ulcers. *Ann. Surg. Phila.*, 93, 178-793.
By Surg. Gyroc. & Obst.

Deaver reports twenty five cases of acute perforation of chronic duodenal and gastric ulcers. Only those cases in which the peritoneal cavity was suddenly brought into free communication with the interior of either viscous through perforative opening in the base of chronic ulcer are considered. In the diagnosis of acute perforation, history of years of suffering, or intermittent indigestion perhaps, with recent recurrence, lasting several weeks and terminating in the present attack, can usually be elicited. Some cases give no such history but after an unusual physical effort, heavy meal, or in entire absence of such predisposing causes the patient has suddenly been taken with most agonizing pain in the pit of the stomach.

The earliest pain in duodenal perforation is often more intense in the right of the midline but finally becomes generalized and more severe in right lower quadrant. Shock was present in over 50 per cent of the author's cases in the early stages. Parietal and diaphragmatic contractions with retching and

vomiting cause painful paroxysms of indescribable intensity. The vomitus is slight in quantity and rarely contains blood. If patient is examined within a few hours he is usually found in a variable degree of shock with legs drawn up, abdomen retracted, and exceedingly rigid. Deaver has noted transverse constriction of the abdomen above the umbilicus as if nature were attempting to isolate the inflamed area. Abdominal tenderness is marked and rather generalized but especially marked overlying the ulcer. Liver dullness may be obliterated with the scaphoid abdomen. The most characteristic sign of perforated duodenal or gastric ulcer is the peculiar density of the abdominal walls. Percussive sounds are almost invariably absent. A differential diagnosis between perforative ulcers of the proximal duodenum and the pyloric end of the stomach is usually impossible, except that the former is much more common than the latter.

The author details the history of typical case and follows with another case in which extravasated fluid from perforated ulcer followed the paracolic grooves along ascending colon, giving rise to right lower quadrant peritonitis which closely simulated acute appendicitis.

Immediate laparotomy with complete isolation of the ulcer-bearing area by plication with posterior gastro-jejunostomy is the rational surgery of chronic ulceration of duodenum. Pelvic drainage and the Murphy-Ochsner post-operative treatment is used in all cases. Six of the author's cases were admitted in moribund condition and not operated. Of the nineteen operated cases, all are subjected to the complete operation with two exceptions and all recovered except one.

R. W. McNALLY.

Von Haberer: Peptic Ulcers of the Jejunum (*Ueber Frage des Ulcus pepticum jejuni*). *Dtscher chir. Kongr.*, 1913.
By Zentralbl. f. d. ges. Chir. I. Gernsbach.

Von Haberer had the opportunity to interfere five times in cases of post-operative peptic ulcer of the jejunum, only two of which had been operated primarily by him. One must differentiate the ulcer occurring at the anastomosis-ring from the true post-operative ulcer. Many of the explanations for the occurrence of the former (necrosis along the line of suture of the mucosa, small suture-line abscesses in the mucous membrane-ring, etc.) are insufficient to explain the occurrence of the peptic ulcer of the jejunum. Certainly many secondary changes occurring in the anastomosis-ring are taken wrongly for peptic jejunal ulcers. Here belong many of the secondary contractions of the ring, especially after button anastomoses, or after suture, which the opening was made too small for the ensuing muscular hypertrophy of the stomach. Von Haberer during the last year has had occasion to operate three cases in which the pathology consisted of simple contractions of the opening without any trace of recent or old inflammatory processes. If one considers the general chronicity and torpidity

of the post-operative peptic ulcer of the jejunum, one is hardly justified in speaking of cured peptic ulcers when complete negative findings exist at the ring. These facts are really questions of technique, although the possibility of a contraction of the ring, as a result of peptic ulcer of the jejunum, is not denied. In that case, however one will find, if not the fresh ulcer, the remains of one when the anastomosis ring is renewed. In regard to the exciting causes of peptic jejunal ulcers we know nothing definite. The only certain fact is that hyperacidity of the gastric contents is of decided importance.

The good results obtained in the three cases operated upon by the author justify the recommendation of the radical operation in peptic jejunal ulcers in severe cases, although one can hardly hope to remove the disposition to recurrence. Perhaps severing of numerous nerves may reduce the danger of recurrence. To the question of etiology nothing positive can be added from the observations. The author, however, was surprised at the length of time that elapsed before any of the patients sought surgical aid. It is also probable that the well-known vicious circle between ulcer and hyperacidity may also increase the disposition to peptic jejunal ulcer. From this, the logical conclusion would be to resort to early and radical operation for every gastric ulcer. Very essential is the strict internal after treatment of all operated patients.

Cheever: Acute Angulation of the Terminal Ileum as Cause of Intestinal Obstruction in Certain Cases of Acute Appendicitis. *Boston M. & S. J.* 92, April, 79.
By Surg., Gynec. & Obst.

The author reports three cases in which there was an acute angulation of the terminal portion of the ileum following operations for pus appendix. The patients were all operated as soon as they presented themselves at the City Hospital. In two cases signs of intestinal obstruction appeared in three days, while in the third they appeared on the sixth. All the patients rapidly sank and their condition became serious in a few hours. In the first case (no 7) the wound was explored and ileostomy was performed hastily through the left linea semilunaris. This artificial anus suited the patient through and three weeks later a loop of the terminal ileum with the artificial anus was resected and the bowel repaired by an end to end anastomosis, the patient making satisfactory recovery. In the second case time was wasted endeavoring to overcome the condition by means of conservative methods. A later ileostomy failed to save the patient. In the third case the terminal ileum was found adherent along the tract formerly occupied by the appendix. It was acutely angulated in the pelvis. The adhesions were separated, the ileum freed, and additional drainage of the bowel established by a tube in the proximal limb. The patient left the table exhausted and died in twelve hours. The choice of an exploratory operation was unfortunate.

The mechanism of this complication is apparently clear. The terminal portions of the ileum occupy the pelvis in the majority of cases, and in the presence of the adhesive plastic exudate which accompanies acute appendicitis it becomes fixed in the course of a few days. Probably no definite harm results in the great number of cases, or nothing worse than some degree of ileostasis, but more rarely, owing perhaps to the crowding out of the pelvis of the rest of the ileum, an acute angulation occurs at the lowest fixed point which, with the condensation of the inflammatory adhesions, affords an obstruction to the passage of gas. Then ensues dilatation, this in turn results in more kinking and a valvulike obstruction which becomes fixed by agglutination of the congested serous surfaces.

From the three cases considered the author comes to the following conclusions. In acute pelvic appendicitis, where the inflamed or gangrenous appendix has been torn from its bed on the lateral pelvic wall, from the brim of the floor, the occurrence of the earliest symptoms of intestinal stasis, especially if appearing after an interval of a few days of normal convalescence, should lead to the assumption that there exists an acute angulation of the terminal ileum at the pelvic floor. After eliminating poorly placed drains as a factor, a secondary operation should be performed. If the patient's condition does not justify this, a better than forlorn hope is offered by ileostomy. EDWARD L. CORNELL.

Ach: Arterio-mesenteric Ileus (Arterio-mesenterischer Ileus). *Beitr. z. klin. Chir.* 39, 3, 1902, 7.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Gastro-duodenal or arterio-mesenteric ileus (acute dilatation of the stomach) is caused by the small intestine prolapsing into the pelvis and exerting traction on the mesentery which causes a compression of the duodenum with secondary acute dilatation of the stomach. According to other investigators, the acute dilatation is primary and the obstruction of the duodenum secondary. The author has conducted extensive animal experiments and believes that the acute dilatation of the stomach is caused either as a result of disturbance of the nervous mechanism due to the anesthetic, or mechanically as result of the operation leading to overfilling of the stomach with dilatation. The author advises gastric lavage and the Schnitzler stomach position, by which the ileus can usually be overcome. A posterior gastro-enterostomy is likely to be considered in the very severe cases. KNOKE.

Fowelin: Anesthesia of the Right Iliac Region for Operation in Chronic Appendicitis (Die Anästhesierung der rechten Darmabteufung bei der Operation der chronischen Appendicitis). *Zentralbl. f. Chir.* 9, 31, 345.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Fowelin operated cases of chronic appendicitis under local anesthesia by the following method:

After anesthetizing the abdominal wall, the needle is carried from the anterior superior spine toward the median line and plunged deeply into the iliac fossa, and then laterally along the peritoneal wall so that the injected fluid is well diffused. The method was tested in fifty-four cases. In five cases, the anesthesia was not sufficient and had to be supplemented by chloroform. The ligation of the mesentery of the appendix as painful in all cases.

Time: 100 min.

Lougard: A Contribution to the Treatment of Acute Suppurative Appendicitis: Report of Series of 100 Cases (Beitrag zur Behandlung der akuten suppurativen Appendicitis. Bericht über eine zusammenfassende Serie von 100 Fällen). *Arch f. klin. Chir.* 9, 1, 1913.

By Zentralbl. f. d. ges. Chir. u. t. Grenzgeb.

The author analyzes series of 100 cases of acute suppurative appendicitis with perforation and involvement of the peritoneum from the surgical department of Löst'schen hospital. The results prove the advantages of the early operation immediately after a diagnosis is made. A total of 77 operations were performed on the 100 cases, with mortality of 6 per cent. Excluding one pleural empyema operation all of the operations were performed either for the cure of the hernia or for ileus.

Following the primary operation 16 deaths occurred (1 of peritonitis, 4 of sepsis, of ileus). 14 deaths occurred as result of the secondary operations. The author then reviews the clinical symptoms, diagnosis, therapy and tabulates the cases. In peritonitis Lougard prefers the dry wabbling of the pus and he has improved his results since he injects about 50 cc of camphorated oil into the peritoneal cavity.

Dr. Arns.

Fowler: A Note Upon the Treatment of Diffuse and Spreading Appendicula Peritonitis: Summary of 78 Cases. *Am. J. Surg.* 9, 1914, 80. By Surg., Gynec. & Obst.

In the series of 69 cases already reported 48 deaths occurred making mortality of 69.5 per cent.

Peritoneal lavage was performed in fifty cases with mortality of sixty-six per cent. Intravenous irrigation was not used and they showed a mortality of 75.0 per cent. Postural drainage was instituted in thirty-four cases with 6 deaths, mortality of 50 per cent. Fifteen cases occurred prior to 1900 the year this method of treatment was devised by the late George Ryerson Fowler and fifty-four cases were after 1900. Death occurred in eighteen of the twenty cases which postural drainage was not employed making mortality of 8.8 per cent, or an increase over those treated by postural drainage of 3.8 per cent. The mortality of fifteen cases occurring 1903 and 1904 was 93.3 per cent the mortality of fifty-four cases occurring in the successive years up to 1908 was 6.9 per cent. In four cases enterostomy was performed three died, mortality of 75 per cent.

The author makes the McBurney incision, or modification (the Fowler) and the rectum with about equal frequency, removes the appendix when possible and usually inverts the stump. Peritoneal lavage is not employed. Rubber tube drainage is preferred.

After careful consideration of these cases, the author concludes: (1) It is strongly advised that suspected cases of acute appendicitis be placed and maintained in the Fowler position. Postural drainage to be effectual must be maintained all the time. Early institution of postural drainage is of greater benefit to the patient in preventing septic material from reaching the diaphragmatic peritoneum than in preventing further absorption after this area is once involved. Ambulance cases of appendicitis should be brought to the hospital in the sitting posture. The trunk should be elevated during the operation. The cart which transfers the patient to and from the bed should be elevated to the head. (2) Ochsner treatment should be instituted before and after operation and Murphy's protodynia should be practiced.

The following table appertaining to the entire series is of interest and shows the mortality during the successive years with different methods of treatment.

Year	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	Total
Peritonitis	1	1	1	1	1	1	1	1	1	1	1	1	12
Septicemia	1	1	1	1	1	1	1	1	1	1	1	1	12
Ileus	1	1	1	1	1	1	1	1	1	1	1	1	12
Empyema	1	1	1	1	1	1	1	1	1	1	1	1	12
Other	1	1	1	1	1	1	1	1	1	1	1	1	12
Total	5	5	5	5	5	5	5	5	5	5	5	5	60
Mortality	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7

*Statistics since 1900, when postural drainage was first advocated.

Arns: Appendicostomy (L'Appendicostomie). *J. de chir.* 9, 1, 1913. By Surg., Gynec. & Obst.

Like all fistulae established in the intestinal tract, appendicostomy could appear to serve both as a way for the introduction of solutions and as an exit for intestinal contents. As to the latter the author asserts that while not serving in the capacity of an artificial anus, yet, except where the fecal contents are too dense appendicostomy may serve useful means for evacuating both large and small intestine.

The technique of the operation is varied according to the mobility and position of the cecum and appendix. M. Arns describes two methods—the pure and the modified appendicostomy in which the blood supply of the appendix is cut off through ligation and section of its mesentery. In the pure

appendicostomy, which is preferable when the procedure is desired only for the introduction of solutions, the author insists that the incision be sutured to the parietal wall, using a collar stitch taking in an area about the appendix the size of a silver dollar. The modified appendicostomy is essential in all cases when an opening is desired to evacuate the intestine. This technique has been used even where the appendix was gangrenous (Wilms). The appendix is not opened for 24 to 48 hours, by which time there is no danger of contaminating the abdominal cavity. Appendicostomy has on great advantage over colectomy. It heals spontaneously or after light application of the cauter. It has no disadvantages, for it can be easily converted into a colectomy. The mortality from appendicostomy is practically nil.

Among the many uses of appendicostomy the treatment of colitis is of first importance. No matter what the form, all are benefited, the ulcerative type being most favorably influenced. But appendicostomy is better than colectomy on account of the ease with which the fistula is closed. If the disease be limited to the cecum or sigmoid, it would seem that colectomy in the left iliac region could be the operation of choice, both because of the ease of topical applications and because it affords egress for all fecal matter thus giving complete rest to the diseased parts. It has the no great disadvantage of being difficult to close — often requiring a serious second operation for this purpose. Appendicostomy gives excellent results, even in inflammations of the rectum, and should always be tried before colectomy. Irrigating the bowel through an appendicostomy, a tube should also be inserted into the rectum to prevent over-distention and possible rupture.

In affections of the small intestine, appendicostomy is particularly useful in those cases of enteritis involving the lower part of the ileum. The modified operation should be used as the best results being obtained by retrograde catheterization of the ileo-cecal valve, using a female glass catheter. All manipulations must be very gentle to avoid perforation of the diseased intestine. The author recommends it in cases when, from symptoms of perforation, a laparotomy has been performed. If there is no perforation, the ensuing relief of the tension within the intestine due to the appendicostomy eases the patient and decreases the danger of perforation. Large quantities of normal saline solution can be introduced into the cecum with advantage.

Appendicostomy in occlusions is primarily indicated in cases of paroxysmal attacks. In an obscure nature, seen mostly in old people. A laparotomy shows no definite cause for obstruction. Appendicostomy frequently relieves the symptoms. In dynamic obstruction, no matter where located, appendicostomy is the operation of choice. If the obstruction or occlusion is due to a new growth of the large intestine, colectomy is the operation of choice, provided the tumor cannot be removed. If

however it is determined that the growth can be later excised, appendicostomy will permit of sufficient temporary drainage.

In invertebrate cases of chronic constipation which have resisted all medicinal treatment, appendicostomy by providing an easy method of introducing oil for lubricating the bowel and liquids for macerating the caked fecal masses, affords marked relief.

Arnand claims definite indications for appendicostomy in all forms of serious peritonitis with paralysis of the bowel. It not only affords a means of egress for the retained gases and toxic fluids, but saline solutions may be easily administered by the drop method. It can be given with the patient in any position, the tube is not displaced if the patient is restless, and above all there is no such discomfort as is caused by the rectal administration. It should be employed in all cases where peritonitis is due to a perforation of a viscus in order to relieve the tension on the closing suture.

As complementary to other interventions, in cases of resection of the bowel with anastomosis, appendicostomy has been performed to relieve tension on the sutures. After cases of intussusception in infants, it is recommended as a means of fixation of the cecum and at the same time affording a way to introduce saline solution and heat. In volvulus of the cecum it fixes the cecum and prevents recurrence.

As means of nourishing the patient, nothing can supplant the gastrostomy if an artificial opening is necessary into the digestive tract. But where the obstruction is low down or when it is desired to nourish the patient artificially for a short time only, appendicostomy is infinitely superior to jejunostomy and to rectal feeding.

Finally, appendicostomy has been recommended and used as a means of draining and thus curing the diseased appendix. The author does not sanction this procedure, because chronic appendicitis often causes the conditions for which it is so carefully conserved, namely constipation and colitis. He concludes that this organ so long considered a menace to life and a useless appendage, has been shown to possess properties which entitle it to be rehabilitated as a valuable adjunct to the human economy not to be removed without adequate cause.

ELIAS FISCHER.

Lefrand. An Attempt at Surgical Treatment of Intestinal Biliarrhizias by Eviction and High Resection of the Ano-Recto-Sigmoidal Membrane (*Essai de traitement chirurgical de la biliarrhizie intestinale par éviction et résection haute de la membrane ano-recto-sigmoïdale*). *Rev. med. Egypte* 9, 1.

By Journal de Chirurgie

Madden and Goebel describe two forms of biliarrhizitis which, however, are presumably but two successive stages of the evolution of the disease. The first is characterized by marked redness, thickening, granular aspect of the mucosa with telangiectasia

and catarrhal or purulent secretion in the second, there is marked infiltration and development of polyps, the size of a pea, cherry or even of a pear. These polyps are pedunculated, sometimes blind or even ramified. Digital examination detects them in the rectal ampulla, either single or multiple, and, in the latter case, sometimes grouped in large and numerous clusters. The irregular outlines of the thickened sigmoid stuffed with polyp may perhaps be felt through the flaccid and wasted abdominal wall. The consistency of the polyp is soft and brittle; they are very mobile, slip between the fingers easily and bleed readily. Consequently, during this stage of the disease, the stools are very frequent. They are fecal in character but once or twice a day all the others containing only blood and mucus. There may be from 10 to 30 stools a day as in dysentery; hence the name of bilharzial dysentery bestowed upon this condition by Firket.

Sometimes the rectal ampulla is the starting point of simple or branched fistulae which open on the skin of the anal margin, within or without the sphincter on the buttocks, or on the internal aspect of the thighs. The tissues surrounding said fistulae are sclerosed, sometimes even of cartilaginous hardness and the skin assumes warty-like appearance. Internal medication is altogether powerless against this condition. The knife and the sharp spoon are indicated. Wilkt advocates the excision of the accessible polyp, after anal dilatation and incision of the sphincter. Goebel and Madden recommend scraping the mucosa, or even intestinal resection.

Legrand suggests for such cases a new operation which he calls *circumcision and high resection of the sub-recto-sigmoid mucosa*. On the whole this procedure is derived both from Delorme's and from Jevons's techniques for rectal prolapse or it may be likened to Whitehead operation for hemorrhoids extended high up. In two cases operated on by him, the author resected 1 and 4 inches of mucous membrane, respectively. However, in the first case, the resection proved to be not far-reaching enough, for two unremoved bilharzial polyps were subsequently found in the lowered sigmoid. One must not, therefore, hesitate to remove an extensive area of mucosa—Delorme's resection of 3 inches for ano-rectal prolapse shows how great a leeway there is in this matter. Post-operative recovery was perfect in both cases of Legrand's, but the therapeutic end result remains undecided, as neither patient could be followed.

The author himself sets forth the criticism his operation is open to. It is difficult tedious and entails considerable loss of blood. The post-operative period is painful and patients run the risk of partial but protracted incontinence of the sphincter. Furthermore, there is possibility of tight cicatricial stricture if the stitches cut through and the upper end of the mucosa retracts. Finally even taking for granted that all polyps have been removed, will not the adult worms harbored in the portal vein lay eggs which ultimately will cause the condition to

recur? This is undoubtedly the most serious objection against the method; time alone will tell whether it is justified or not.

J. DENON.

Rydqvis: Operative Treatment of the Tumors of the Sigmoid Flexure and Rectum (*Om åfärdiga postoperativa värdet hos opererade cancer i oöfärdigheten*). *Præg. chir. i Gädd.* no 2, v. 11, 54.

By Zentralk. f. d. ges. Chir. u. l. Gesehsh.

The material at the Lennberg clinic consisted in 74 cases, the histories of which are given as the close of the article. Early diagnosis is important, therefore early digital examination is considered very valuable. The rectoscope is to be used cautiously and if possible always under the control of the eye. The excision of a piece of tissue for diagnostic purposes has been discarded, as the nature of the disease was evident in the majority of cases. The fact that the tumor is high up or has spread to the prostate, vagina or bladder is no contraindication, according to author but he does not operate if it involves upper portions of the sacrum. The preparation of the patient is begun one week before the date set for operation and consists of castor-oil and enemata. Opium is given before and after the operation. Extrochloration before operation is demanded on account of danger of bowel perforation. If the tumor is located at the junction of the rectum and sigmoid, an artificial anus is made about two weeks before the date set for the final operation. It is made in the mid-line above the umbilicus, the transverse colon being used. The diseased portion is then thoroughly irrigated.

The author discards the operation per rectum and favors the abdominal or abdomino-sacral route. He makes skin and bone flaps en masse out of the transversely divided sacrum which is turned out ward. He warns against opening of the bowel before the segment has been completely separated. The peritoneum is opened to remove any involved glands. The superior hemorrhoidal artery is ligated. After resection, the cut end of the bowel is fixed at the anus, retaining, if possible, the sphincter function. Tamponsade is placed in the wound. In suturing the bowel, the author advises careful suture of the mucosa, as hemorrhages are thus avoided. At the Lennberg clinic 86.8 per cent of cases were operated radically. The mortality of the radical operation was 37.0 per cent, while in the palliative method it was 100 per cent.

WIKENROTH.

Chaillet and Bonnet: Primary Melanotic Tumors of the Rectum (*Les tumeurs mélanotiques primitives du rectum*). *Rev. de chir. Par.* 1912, t. 1, no. 64, 215, 216, 217.

By Journal de Chirurgie.

Chaillet and Bonnet report a case of melanotic tumor of the rectum, together with conclusions drawn from 64 similar cases reported in the literature. The autopsy showed generalized metastatic melanosis in practically all the organs of the body. Rectal melanomas are generally confined to one wall of the anal-rectal canal, usually the posterior and show no

tendency to become annular. They may form multiple tumors which usually become pedunculated. The primary tumor develops in the submucosa, infiltrates the muscularis and pushes forward the mucosa, which frequently becomes ulcerated. Melanotic venous nodules are sometimes observed in the perianal region. The perirectal cellular tissue is sometimes packed with melanotic nodules, but in contra distinction to other cancers, anorectal melanoma seem to have no tendency to invade neighboring organs nor to form adhesions with them; on the other hand, rapid and multiple metastases occur at a distance. Glandular metastases are the rule. Cutaneous nodules are somewhat rare and melanotic metastases may be uncolored.

The authors object to the classification of these tumors as sarcoma on the basis of their cellular form, since this is modified by compression. They consider these tumors as melanotic epitheliomas, their histological studies having led them to believe that the malpighian layer (from the anal cutaneous zone) is the point of origin. These tumors are therefore cutaneous epitheliomas which clinically show themselves as rectal tumors, because of their upward infiltration in the submucosa of the rectum with later secondary ulceration or pedunculation into the rectum.

The clinical symptoms of these tumors are very variable. Their evolution may be absolutely latent. There is also painful form which shows symptoms of obstruction, diarrhea and hemorrhage. Other cases show as the prominent symptom secondary prolapus, adenopathy or simply the presence of a tumor. The examination may reveal submucous or subcutaneous nodules at the anus or a polyp which must be distinguished from the usual hemorrhoids or polyps. These tumors are mobile, often surrounded by satellite nodules and usually early at least, covered by normal mucosa. They are situated low down, are non-annular and have nodular surface. Melanotic cachexia, which clouds the picture, may be diagnosed by the presence of pigmented granules in the blood and by the examination of the urine. The total duration of the disease rarely surpasses one year. The only treatment is surgical. General melanosis alone forbids intervention and, even in this case the authors believe that frequently a palliative operation is to be recommended. The authors advise a radical amputation of the rectum, combined with a systematic extirpation of the inguinal glands.

In the cases reported the operative mortality was 2 per cent. The last results were studied in 50 cases. Eight patients are still living, two with no recurrence, three with local recurrence, one with glandular recurrence, two with recurrence and metastases. Twenty-one patients have died, four from local recurrence, seven from recurrence and metastases, seven from metastases without recurrence, and three from unknown causes. Metastases are found, therefore in 55 per cent of the cases and

recurrences in 55 per cent. Recurrence is usually local or glandular. Certain of these recurrences have been operated with prolongation of the period of survival. J. OXKIRK.

Ach. Transplantation of Fascia for Rectopexy and Nephropexy (Fascientransplantation zum Zwecke der Rectopexie und Nephropexie). *Deutscher chir. Kong.* 93.
by Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In a rectopexy Ach exposes the pouch of Douglas by means of a transverse supra-symphysal incision with the pelvis elevated and strong traction on the pelvic colon. After incising the peritoneum, he mobilizes the rectum widely downward up to the proximity of the sphincters, and dissects between vagina and rectum. He then removes a strip of fascia lata from the thigh 35 cm. long, 8 cm. wide, and transplants this to fix the rectum and vagina. The flap is split longitudinally one strip being carried almost circularly around the rectum and fixed to the rectum with a large number of sutures. The other strip is brought down anteriorly between rectum and vagina. With its free edges, it is fixed first to the rectum and then to the upper half of the vagina. To prevent adhesions, the fascial flap is placed extra-peritoneally so that the peritoneum, after the right ureter is pushed back, is undermined through the right ligamentum latum up to the horizontal ramus of the pubis. The fascial flap is now fixed here by series of sutures at Cooper's ligament, after the rectum and vagina have been pulled up as far as possible by strong traction. The free edge is again planted extra-peritoneally in the abdominal wall and fixed to the musculature with sutures.

Ach operated a patient with high-grade rectal and vaginal prolapse nine months ago. The fascial flap healed smoothly and, up to the present time, the patient has had no recurrence, in spite of the extraordinarily wide and weakened pelvic floor.

For purposes of nephropexy, Ach has also used a fascial flap as fixation material. The course of the operation was as follows. The kidney was exposed through a Simons' lumbar incision and by fixation. An incision 7 cm. long was made through the capsula fibrosa in both the anterior and the posterior surfaces. The fibrous capsule was separated by blunt dissection from one incision over the convexity to the other. A flap of fascia lata 30 cm. long and 6 cm. wide was pulled through the two incisions were united, thus the fascial flaps are twice pierced by each individual suture. As a result the kidney is completely enclosed in a fibrous sac with firm anterior and posterior reins well designed for fixation. After reposition of the kidney these reins are fixed to the deep as well as the superficial leaves of the fascia lumbodorsalis.

Up to the present time Ach has operated ten patients. The first operations were done two years ago. The fascial flaps healed well in all cases and the result was successful. None of the kidneys

became mobile. A cure resulted in all except a hysterical person, who admits an improvement, but is not cured.

Dogsaw Changes in the Digestive Processes after Gastrojejunostomy Gastrojejunostomy and after Total Extirpation of the Stomach (Änderungen in den Verdauungsprozessen nach Gastrojejunostomie und Gastrojejunostomie und nach totaler Magenextirpation) *Med. u. d. Grenzgeb. d. Med. Chir.* 9, 3, xxvi, 76.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports the results of his studies of the digestive processes in dogs after resection of the pylorus and after total gastrectomy. The chemical analysis of the stomach and bowel contents was made after the temporary isolation method of London. Six dogs were operated according to the method of Kocher (gastrojejunostomy) and according to Billroth II (gastrojejunostomie ant. colica anterior with anastomosis according to Braun). On two dogs gastric fistulae were made, and on four bowel fistulae 5 cm. above the valve of Bauhin. The pyloric ring and the pars pylorica of the stomach were entirely resected. Experiments with five per cent grape sugar solution gave constant results — the solution left the stomach much slower after pyloric resection, and it was more retarded after the Billroth operation. Further experiments with meat, amylopectin, fat, bread and milk showed still greater retardation. After excluding the rhythmic contraction of the pylorus, the stomach contents are propelled much slower apparently because the reflex mechanism is absent (which acts as transporting elevator or suction apparatus and overcomes the resistance of the bowel much easier). The second and constant phenomenon is the return flow of the transpyloric secretion into the stomach, as described by numerous authors, persisting one and one half years after the operation. The returned bowel secretion serves to split the carbohydrates thoroughly; digestion of albumin occurs in an alkaline medium through the action of pancreatic ferments, and the fats become saponified, all in an organ normally not adapted for such work. In the stomach of operated dogs, digestive processes take place which normally occur in the duodenum, and upper and middle third of the small intestine. The small intestine accommodates itself to these conditions remarkably correct the processes and completes the digestion, as is shown by the author's experiments.

One dog operated according to Billroth's method developed three peptic jejunal ulcers opposite the anastomosis, and severe catarrh of the intestine. Two other dogs showed atrophic pancreatic cirrhosis and the dogs operated on according to Kocher's method showed no such changes. The author therefore prefers the Kocher method. The cure of an ulcer of the stomach is therefore, according to the author dependent on the altered chemistry of the stomach contents. After total gastrectomy the author was able to find but few phenomena. Of the

total food ingested, thirty per cent nitrogen was observed, fifty-eight per cent sugar and forty-five per cent fat. The dog did not lose weight, had good appetite and passed normally formed feces. At autopsy, the duodenum was found markedly distended, its walls thinned, and the epithelium trophic.

Adams.

LIVER, PANCREAS, AND SPLEEN

Boljarsky Injuries of the Liver According to the Data of the Surgical Department of the Obshchaya City Hospital for Men in St. Petersburg (Die Leberverletzungen nach den Daten der Chirurgischen Abteilung des städtischen Obshchaya Hospitals für Männer in St. Petersburg). *Russk. Vrach.* 9, 3, xli, 357.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports 99 cases. He divides all cases into subcutaneous or closed and open injuries. These may be subdivided into uncomplicated and those complicated by injuries of other organs.

Among the 99 cases are 18 subcutaneous ruptures of the liver with 3 cures and 15 complicated ruptures, both of which died. 6 gunshot injuries with 4 cures, of which 4 were uncomplicated. 85 stab and lacerated wounds, with 30 cures, of which 47 were uncomplicated with an exitus in 6, and 38 are complicated with an exitus in 1. The right lobe and its upper surface are most often injured. Sixteen wounds went through the liver in case the wound cut from below upward damaging the gall-bladder. The size of the wound as 0.5-5 cm. in diameter and 8-15 cm. in depth. In 1 case a part of the right lobe the size of an adult fist, as torn off. The complicated injuries involved, besides the liver the stomach (1 case), intestine (1), lung (1), pancreas (1), mesentery (1), spleen (1), gall-bladder (1), pericardium (1) and kidney (1). The liver was injured through the pleura and diaphragm 29 times. In 4 cases the stomach and intestines prolapsed. Most injuries occurred in persons between the ages of 15 and 30. Forty-six of the 99 cases died (mortality 47 per cent). The percentage of exitus in the various forms of injuries is as follows: subcutaneous rupture of the liver (85 per cent), gunshot injuries (55.3 per cent) stab and lacerated wounds (30.3 per cent). Of 47 cases of uncomplicated stab and lacerated wounds of the liver, 6 died and 4 got all (2.6 per cent exitus). The mortality was lowest where cases were operated on in the first 3 hours. After 24 hours the mortality rises to 80 per cent and over.

The causes of death in uncomplicated cases were hemorrhage in 7 cases, peritonitis following liver abscess in 1. The treatment aims at arresting the hemorrhage in injuries of the liver. The author prefers tamponing the liver wounds with free flaps of omentum, which acts mechanically and helps coagulate the blood, to suturing and the finally tamponade. This tamponade was successfully used in 8 cases. With this treatment

the patients remained in the clinic on an average 30 days with a Marry tamponade they remained 60 days.
Jorra.

Brault and Grégoire Chronic Icterus Due to Retention; Stenosis of the Ductus Choledochus; Cholelithiasis; Cholelithiasis; Cholelithiasis (Cholelithiasis par rétention sténose du cholédoque cholelithiasis cholelithiasis). *Bull. et mem. Soc. Med. 4. 1197 de Par* 9 3 1913, 835.
By Journal de Chirurgie.

A woman of 45 years had suffered since the age of 23 with pains in the right hypochondrium. In December 9 following particularly painful attack which was accompanied by vomiting and diarrhoea, icterus appeared and persisted. In April, 9 2 the icterus which had become chronic was still intense and the stools were constantly pale. In the four months which had passed there had been, nevertheless, 2 periods of slight remission, during which the jaundice had been somewhat less marked and the stools somewhat darker. In April, there was no longer any pain. The temperature had never risen above normal and the general condition of the patient was excellent.

The patient was operated on the 8th of April, 1913. Kohr's incision. The gall-bladder was found to be fibrous and contracted; the dimensions of the fundus were 10 cm. It seemed packed with calculi and the region of the cystic duct was marked by adhesions. The cystic duct itself was dissected in its lower portion and as then found to be reduced to a fibrous cord, the lumen being completely obliterated.

While searching for the ductus choledochus serious arterial hæmorrhage occurred which seemed to come from the hepatic artery or from some important anomalous branch. A finger was introduced into the foramen of Winslow and anterior pressure was exerted, which produced immediate cessation of the bleeding. The artery was then found to show a small hole which was obliterated by lateral ligature with fine silk. There was no further bleeding from this source, and the arterial pulsation above the ligature was assured that the circulation had not been interrupted.

The ductus choledochus was not dilated but appeared very friable. A No. 10 sound could not be passed lower than the superior pancreatic portion of the duct and only the finest curved sound could be passed into the intestine. No calculus was discovered by this maneuver. The head of the pancreas was not indurated and showed no appreciable signs of inflammation. Grégoire considered that there was present double stenosis of the biliary ducts, that is, complete obliteration of the cystic duct and partial stenosis involving the whole ductus choledochus, but most marked in its lower portion.

The ductus choledochus was divided down as low as possible and the superior portion implanted on the upper surface of the first portion of the duodenum. Two layers of sutures were used, the first complete

and the second superficial. The infra-hepatic compartment was packed.

The post-operative course was simple. At the end of four weeks all trace of icterus had disappeared and the wound was closed in six weeks. The patient, when seen one year later was in perfect health yet the conjunctivæ still had a slightly icteric tinge. Brault and Grégoire state that eleven similar cases have been previously published in France of surgical treatment of sclero-cicatricial stenosis of the chief biliary duct.
MADRIE CRYVASSO

Friedrich Pancreatic Affections and Rare Affections of the Duodenum and Their Value for the Differential Diagnosis of Duodenal Ulcer (Pancreatische Affektionen und Seltene Affektionen des Duodenums in ihrer Bedeutung für die Differentialdiagnose des Ulcus duodeni). *Deutscher chir. Kongr.* 913. By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author discusses pancreatic affections (usually large stones, pancreatitis) and rare affections of the duodenum (carcinoma, polyp, diverticula) in regard to their significance in the differential diagnosis of duodenal ulcers. He bases his conclusion on sixteen of his cases. (Among no hundred and ninety-three stomach and duodenal operations, there were only five of duodenal ulcer and 2 for cancer duodeni.) 1. the case histories of duodenal ulcer a long period of illness, generally termed stomach trouble, always precedes. Vomiting occurred frequently, nocturnal pain regularly and now and then also self-observed emaciation. Symptoms of stenosis and hæmatemesis are found especially in duodenal cancer blood in the stool occurs also in duodenal ulcer. Hunger pain was only occasionally observed in ulcer duodenal flatulence was more frequently found in associated or isolated affections of the pancreas (pancreatitis, stone in pancreas, pancreatic dermoid).

In six out of fourteen cases of ulcer and carcinoma of the duodenum, the pancreas was also involved, and three times in cases of ulcer. The author gives the details of all his findings. In two of the six cases of carcinoma of the duodenum, pressure upon the common and pancreatic ducts set in, causing melano-icterus and necrosis of the pancreas. In addition, the author reports two cases in which a large diverticulum of the duodenum containing a pancreatic stone (3.0 x 3 cm.) caused fatal complications. These diverticula were pressing against the common duct opening.

Nordmann Experimental and Clinical Relations between Acute Necrosis of the Pancreas and Cholecystitis on the One Hand and Cholelithiasis on the Other (Experimentelle und klinische Zusammenhänge zwischen akuter Pankreasnekrose und Cholelithiasis bzw. Cholelithiasis). *Deutscher chir. Kongr.* 915.
By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

Nordmann points to the fact that in 40 per cent of all cases, acute necrosis of the pancreas is associated with either cholecystitis or cholelithiasis. In the

experiments heretofore conducted to explain these relations infected bile as injected into the ductus pancreaticus. The positive results of pancreatic necrosis obtained in this manner were according to the author caused by the fact that the very fine branches are probably ruptured and the pancreatic secretion was pressed into the pancreatic tissue. The results thus obtained, therefore do not perfectly parallel pathological conditions as they occur in man. In his experiment on thirty dogs he closed up the papilla with a silk oesophagus suture and injected bacterial mixtures into the gall-bladder. It was possible, in this manner using careful technique and not handling the pancreas, to produce typical acute pancreatic necrosis associated with hemorrhage and extensive necrosis of fatty tissue which is macro- and microscopically analogous to that which occurs in man. If only the upper papilla is ligated and the lower duct remains untouched, no changes occurred in the pancreas. In spite of infection of the bile ducts. The results were likewise negative if both the papillae and the common duct were ligated alongside of the pancreas and infectious material then introduced into the gall-bladder. Nordmann is of the opinion that these experiments pancreatic necrosis influenced by three factors: (1) by the simultaneous exclusion of all pancreatic juice and bile from the duodenum which must be complete; (2) by the presence of infectious material in the gall bladder; (3) by the anatomical tract seen by the course of the ductus cholecysticus and ductus pancreaticus in the dog, which occasionally resembles the anatomical relations found in man. Both duct empty into the upper papilla in the duodenum and frequently form a small ampulla by their union above the papilla so that in lesions of the latter bile can enter the ductus pancreaticus. The clinical observations of Nordmann completely correspond with these experimental results.

He had the opportunity to operate on eight cases of severe acute pancreas necrosis. In the first four cases the pancreas as delineated and drained from all sides, either through the ligamentum gastrocolicum or through the lesser omentum. This procedure followed by abdominal lavage. All died in collapse shortly after the operation. In the next three cases, the gall bladder as drained in one and stumped in two. In these three cases, drainage of the bile ducts was done in addition to decompensation, drainage and tamponade of the pancreas. All recovered. The eighth case as not operated on on account of collapse and a few days later large left-sided subphrenic abscess was opened. One patient had very severe gall stone colic and slight icterus preceding the attack recovered. A topey of the operation revealed the presence of gall-stones in all cases. Pancreatic secretion was discharged through the common bile-duct drain in all cases in which the gall bladder was opened. From this the author concludes, it is certain that both ducts unite some distance above the papil-

la. In view of these clinical experiences, confirmed by experimental evidence, the author advises, wherever possible to drain the gall-bladder and the common bile-duct in every case of acute pancreatic necrosis. The gall bladder should be extirpated when the patient's condition permits it. If it is easily accessible and marked changes have taken place.

Carwardine and Short: The Surgical Significance of the Accessory Pancreas. *Ann. Surg.* Phila., 1913, lvi, 653. By Surg. Gynec. & Obst.

The frequency and position of an accessory pancreas with the conditions in which it may give rise to surgical affections are discussed by the authors. Two case histories are cited. In all only 30 cases of accessory pancreas are on record.

The accessory pancreas is small, rounded nodule, which may be as large as filbert, situated somewhere in the wall of the alimentary canal, though in one case it was found in the abdominal wall. The common situations are: (1) in the wall of the stomach; (2) in the wall of the duodenum; (3) in the first eight inches of the jejunum; (4) in lower jejunum or ileum. Histologically the accessory pancreas shows typical pancreatic structure and well defined ducts.

The accessory pancreas may give rise to trouble in four ways. It may produce mechanical alterations in the walls of the alimentary tract. Several such cases have been recorded. It is liable to acute pancreatitis. The authors give the history of their own cases coming under this class. It may develop chronic interstitial pancreatitis. It may complicate the diagnosis of the cause of abdominal symptoms. R. W. McNAUL.

Fowler: Cysts of the Spleen. *Ann. Surg.* Phila., 1913, lvi, 658. By Surg. Gynec. & Obst.

Fowler's article is very comprehensive and dealing with pathological and surgical study of cysts of the spleen. He maintains that distinction must be made between (1) hematomas; (2) cysts arising from the disintegration of splenic tissue, and (3) genuine cysts. The latter he divides into dermoid, parasitic, and non-parasitic cysts.

Cysts were found by him to be slightly more common in women between the ages of 30 to 50 years. Malaria and syphilis seem to exert an influence in causation. A rather concise classification according to the origin of the cysts is offered by the author as follows:

Traumatic cysts (hematomas, large unilocular cysts secondary to trauma).

Infestation cysts (traumatic or inflammatory inclusions of peritoneum). Small multiple—superficial and deep.

Dilatation cyst (ectasia of splenic sinus).

Disintegration cysts (arising from arterial degeneration and occlusion or other arterial occlusion, as from emboli, and resulting in infarction and necrosis of parenchyma).

Neoplastic types (hemangiomas and lymphangiomas).

6. Degeneration cysts (arising from secondary changes in 5)

I forty-three cases in this series the contents were stated to be hæmorrhagic. Seventeen were subcapsular hæmatomata which are usually large, single, and unilocular. Twenty-two were serous cysts eight of which were small, superficial, and multiple. These occur most commonly on anterior border of spleen, seldom upon the posterior border or convex surface, and rarely upon concave surface. Twelve were lymphatic cysts or lymphangiomas.

Clinically the most frequently recognised cyst is the large unilocular variety of the hæmorrhagic or serous type containing from one to ten litres. Cysts give no symptoms as result of involvement of splenic tissue *per se*. Large cysts give pressure symptoms and in some cases symptoms arise from adhesions formed about the spleen. Pain of a heavy dragging type, in the left hypochondriac or epigastric region is the most predominant symptom. Gastro-intestinal and respiratory symptoms may result from pressure and be quite marked. The tumor mass is usually located to the left of the umbilicus. Percussion reveals a mass continuous with splenic dullness which may be movable or fixed, smooth, irregular and of doughy or elastic consistency. Fluctuation is not always present. Friction from firm may be present over splenic area. Ascites is usually absent except in *ex* growths.

The diagnosis is rarely made clinically. A history of trauma, the rapidity of growth, location of mass, and character of pain are most important desiderata. The condition must be differentiated from other splenic enlargements and cysts of other abdominal contents.

Cysts have been treated surgically by (1) puncture, (2) incision and drainage (3) excision, and by (4) splenectomy. Puncture is a discarded procedure. Incision and drainage as one or two step procedure has been recorded in fourteen cases. Results were not stated in five cases, seven recovered, and two died. Excision of cyst was practiced six times. Four recovered, one died, and the result was unstated in one.

Fowler has been able to collect twenty-seven cases of splenectomy for cysts. The result was unstated in two cases, one died, and twenty-four recovered.

R. W. McNEAL

MISCELLANEOUS

Corner and Cantley. Diagnosis of Acute Abdominal Conditions of Children. *Practitioner* Lond., 93, 22, 798. By Surg. Gynec. & Obst.

Corner feels that it is largely the work of the practitioner to diagnose the condition. The work of the surgeon is taken up usually in confirming the opinion of the practitioner. He gives a table comparing the frequency of acute abdominal conditions in children and in adults. The table is produced from 200 cases in children compared with three times as many adults all from the same hospital.

	Children		Adults	
	Per cent	Per cent	Per cent	Per cent
Acute condition of the appendix	44	54		
Intestinal obstruction (not including Intussusceptions)	3	23		
Intussusceptions	47			
Perforations of the alimentary tract		9		
Gynecological conditions				
Peritonitis of other origins	35			
Other conditions	5	3		

This table shows the great preponderance of intussusception and appendicitis among the acute abdominal diseases of childhood. Another point of a great deal of importance is that peritonitis of doubtful origin is of more frequent occurrence in children than in adults. Given acute abdominal conditions and a child under 4 years of age, intussusception is most likely to be the cause while over 4 years appendicitis is the most frequent condition encountered. In children under 4, appendicitis is present in only 3 per cent, while over 4, intussusception is present in only 5 per cent.

Corner has found the presence of enlarged lymphatic glands in the mesentery to be very frequent. He regards them as tuberculous, caused by the bovine type of bacillus. One should not be too hasty in advising operation on children, and rectal examination should never be omitted. C. G. G. UZZ.

Jacobus Laparo- and Thoracoscopy (Über Laparo- und Thorakoskopie) *Beitr. Klin. u. Prakt. Med.*, 93, 22v.

By Zentralbl. f. d. ges. Chir. I. Grunewald

The author has extended the method of cystoscopy of the bladder to the peritoneal and pleural cavities. Laparoscopy is performed with a Nitze cystoscope No. 1 together with suitable trocar. In the execution distinction is made between cases with and without ascites. In the former the fluid must be drained off with a trocar. Filtered or unfiltered air is blown into the cavity until the patient complains, the cystoscope introduced through the trocar and the abdominal cavity inspected. The parietal peritoneum is very sensitive to the touch of the lamp of the cystoscope. In patients without ascites, the direct introduction of coarse trocar is not possible because of the danger of injury to the intestine. The author finds his way with dull puncture needle. The space in the abdominal cavity in patients without ascites is often very small, so that a comprehensive picture of the liver or organs cannot be obtained. In cases without ascites, the author advises against the use of the method owing to injuries to the intestines. Laparoscopy is restricted to examination of superficially placed parts. Therefore this method is of use only in diseases of the liver, peritoneum, and conditions with ascites. The effect of therapy can also be determined to a certain degree. The technique in large corpulent patients is difficult.

The author examined 60 cases by laparoscopy for diagnosis. The patients presented the following conditions: Cirrhosis of the liver in fourteen, diseases of the liver with picture of Pick's disease in

eight of the lobes; three congestion of the liver in four tuberculous peritonitis in six, abdominal tumors in twenty-four and ten cases of minor interest. The changes in cases of cirrhosis of the liver offer no diagnostic difficulties. On the other hand the changes in the peritoneum are not very easily determined. Gray red or fleshy red color of the liver must be considered. Diagnosis of Pick disease can be made by laparoscopy with a more or less degree of certainty. The liver of this is the method proved of practical use. One sees in which it is not clear whether the enlargement of the liver is due to alcohol or luetic infection. The condition of the lobes indicated uses of the liver. The status of the liver the method shows that cirrhosis of the liver is not present judging by the superficial changes. In the six cases of tuberculous of the peritoneum the tuberculous nodules are plainly seen by laparoscopy. A slice of the extent of the tuberculous also obtained. Malignant tumors of the abdomen there is no doubt of the findings. Metastatic growths on the intestines, liver and peritoneum are easily recognized. It is more difficult to recognize them the omentum especially when it is very fat. In cases in which it is not possible to decide macroscopically if carcinomatous, tuberculous or luetic changes are present one cannot expect to do so by laparoscopy.

In thoracoscopy the thorax uses the same apparatus as laparoscopy. The skin and pleura must be thoroughly numbed beforehand, so that the thoracoscope may be moved without hindrance in all directions. A pleural exsudate is drawn off and replaced by air. Too high an air pressure in the thorax space should be avoided because of the danger of emphysema of the lung after the completion of thoracoscopy. The point of introduction for the introduction of the trocar is the sixth or seventh intercostal space somewhat median to the anterior axillary line. A certain disinclination is necessary; the best point is the line between the sixth and the seventh rib. On directing the thoracoscope parallel one sees almost the entire upper lobe; this is especially possible in cases of complete pneumothorax. On examining the parietal all distinct difference is seen between the ribs and the

intercostal spaces. The patient is placed preferably on the sound side with a pillow under the chest. If all of the exsudate is not removed, the author introduces a thin catheter alongside the trocar to which he attaches a Potain apparatus to suck it out. In thoracoscopy of the lower part of the thorax, care must be taken not to injure the diaphragm on introducing the stilet of the trocar.

He examined seventy-one cases by thoracoscopy. The following questions seemed to him of particular importance: Is it possible to draw conclusions on the nature of lesion from the changes seen by thoracoscopy? Is it possible to distinguish between tuberculous pleurisy and one of any other etiology? In the seven cases in which a tuberculous pleurisy shown by other methods (guinea pig injection, X-ray) there was an intense reddening and swelling of the serosa and the difference between the ribs and the intercostal spaces was obliterated. Whether tuberculous nodules could be seen depended upon the kind and the extent of the fibrin formation. However the author did not discover marked differences between the different kinds of pleuritis, since the changes which were seen in tuberculous pleurisy were also found in non-tuberculous diseases of the pleura. In serous or sero-hemorrhagic pleuritis the following was found. The tuberculous forms showed intense reddening of the surface of the pleura. The loss of the difference between the ribs and the intercostal spaces and the formation of layers of fibrin. In acute cases gray white nodules are often seen which can be regarded as tubercles. The more marked the fibrin covering becomes, the more difficult it is to recognize the nodules. Idiopathic pleuritis also showed the same appearance in general. Nodules are also present which are very much like the tuberculous nodules. In non-tuberculous pleuritis there is hyperemia of the surface of the pleura. The difference between the ribs and the intercostal spaces remains. Fibrin formation is usually slight and nodules are not present. In chronic pleuritis the principle point of interest is the question of differentiation between tumor metastasis and chronic inflammatory pleuritis. The author did not find characteristic changes for tuberculous in cases of emphysema.

Kous

SURGERY OF THE EXTREMITIES

DISEASES OF BONES, JOINTS, MUSCLES, ETC. GENERAL CONDITIONS COMMONLY FOUND IN THE EXTREMITIES

Dumont. Experimental Contributions to the Pathogenesis of Acute Hematogenous Osteomyelitis (Experimentelle Beiträge zur Pathogenese der akuten hämatogenen Osteomyelitis). *Deutsche Zeitschrift für Chirurgie*, 1913, 103, 6.

By Zentralbl. f. d. g. Chir. I. Grosseberg

Levy is the first experimenter who successfully produced in rabbits, diseased conditions correspond-

ing to localization and anatomical and clinical symptoms with those of acute suppurative osteomyelitis in man, with any degree of regularity. The earlier bouillon cultures of staphylococcus aureus and also are injected intravenously or intra-arterially for this purpose. The teachings of Kocher, Rodet, and others claiming hematogenous origin of this disease are thus placed on firm basis. His further attempts at determining the blood vessel participation in this process in young bones (these experiments corroborated, and are elaborations of those of Langer) induced Levy to

explain the first occurrence of hæmatogenous infections of the bones as follows:

The staphylococci that by their biological characteristics are most inclined to grow in clusters, become walled off in the minutest endarteries of an osteoblastic zone where they multiply and form the first small abscesses. Metastatic abscesses caused by embolic lodgment of separated groups of staphylococci are responsible for some of the multiple foci. The origin of osteomyelitis by actual embolism is very uncommon. Dumont encouraged by Tvel, studied the theoretically constructed principles of Lexer by microscopical examinations of serial cases as well as by rigid experiments. His experimental examinations established the very important fact that only those kinds of staphylococci are virulent in rabbits that are hæmolytic when brought into contact with blood. The specific *B. citellus osteomyelitis* Hencke is not accepted, as it makes no difference here that staphylococci are obtained — either from acute pustules, furuncles, or other infectious — no whether they are white or yellow. The thorax is invariably able, by means of the hæmolytic staphylococci and according to their quantity and virulence to produce any cases of purulent hæmatogenous osteomyelitis. These cases presented all the variations from the acute foodroyant pyemic form terminating in death in 4 hours without the development of any osteal foci, to the cases progressing very mildly in which the animals remained alive and there appeared all the symptoms of chronic osteomyelitis with sequestration.

For microscopic examination the technique of which is given in detail, the femora of ten animals were utilized. These were killed by injections into the veins of the ears at different intervals, of cultures of diminished virulence. In all cases there were multiple foci in seven of twenty cases, the foci were in the epiphysis and showed no connection with other parts, hence the assumption of anatomical difficulties in the way of spreading of the processes from the diaphysis to the epiphysis through the cartilaginous structures, was confirmed. In the first 2-4 hours after the injection, the cocci were found in the blood only, after 6 hours, principally in the smallest vessels of the bones. After 5 hours, the vessels were broken down and the organisms were found clustered in the adjacent tissues. After 24 hours the first circulatory and nutritive disturbances were noticed. After that, small-celled infiltrations formed around the clusters of cocci and degenerated into milary abscesses. The liberations of emboli, as accepted by Lexer were not found. Lexer's hypotheses were otherwise strengthened and supported by the author's experiments. *Servus.*

Morison. Injuries to the Semilunar Cartilages of the Knee-Joint. *Ch. J.*, 9, 2, 211, 1.

By Surg. Gynec. & Obst.

The author believes the most favorable position of the limb to allow of injury to the semilunar cartilages

is into flexion of the knee accompanied by a twist in the adducted position. It may occur however at the end of forced extension.

Rupture of the cartilage may take place without the severe pain we are accustomed to expect. The pain is not due to the fracture but to the displacement of the fragments between the bones which causes a stretching of the ligaments and a locking of the joint.

Locking is rare except in extension, yet it may occur during flexion or in both positions, depending upon the location and extent of the rupture. A fracture with displacement of the fragment anterior is apt to produce locking with extension, one with displacement posterior will produce locking in the flexed position while a pedunculated fragment long enough to reach both the anterior and posterior parts of the joint may produce locking which occurs during flexion or extension or both. Swelling of the joint which often occurs within a few hours after the injury is probably due to traumatic synovitis.

There is often a tender spot over the anterior and inner portion of the joint and more or less wasting of the muscles. Recurrence of the condition from time to time with intervals which are free from any disturbance whatever renders it of very great diagnostic importance.

Union of the ruptured cartilages may be facilitated by placing the limb in effective splints for six to eight weeks but after recurrence the proper course is removal of all fragments through good exposure of the joint.

The operation is one of the most successful in surgery, failure rarely occurs except in those cases where some fragment has been overlooked.

ROBERT B. COVERED

Hartung. Contribution on Hysterical Contractures after Accidents (Beitrag zur Lehre der hysterischen Contracturen nach Unfall). *Arch. f. Orthop., Mechanotherap. u. Unfallch. Wiss.*, 9, 3, 211, 24.

By Zentrabl. f. d. ges. Chir. f. Grenzgeb.

The author gives a detailed account of a contracture of the shoulder joint after severe injury to the elbow joint. The author's view coincides with that of Trappe that a hysterical contracture is similar to organic disease develops along definite rules, that the primary physiologic fixation of the joint in the position which gave least pain became permanent and pathological under the influence of the hysterical factor. In contradistinction to the healthy person in whom normal condition gains sets in after healing of the injury and cessation of the pain the hysterical patient due to lowered will power, is unable to overcome the sensory irritation or stimulus resulting from the fixation of the joint and its neighboring muscles with the result that the primary physiological reflex contracture develops into permanent hysterical contracture.

GOTHEL.

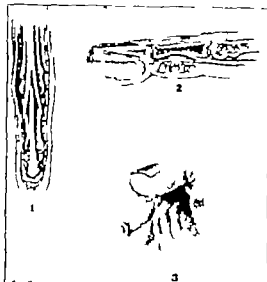


Fig. 1. (Dorrance.) Note distribution of arteries.
Fig. 2. Connective tissue space distended with wax under pressure. Dotted line where incision could extend.
Fig. 3. Line of incision one half only shown.

Dorrance. Treatment of Felons with Reference to the Pathological Anatomy and Location of Incisions. *J Am Med Ass.* 9, 3, 12, 1416.

By SARG. GYORC. & OBL.

He defines felon as an inflammation of connective tissue space which is situated on the pulmar surface of the last phalanx. A space was demonstrated by several dissections of felons and by injecting the space with wax as shown in the cross sections. (Figs. 2 and 3) The epiphysis of the distal phalanx is supplied by a branch from the digital artery before it enters this space whereas the diaphysis is supplied by a branch from the distal artery after it enters the space thus explaining why the epiphysis lives and the diaphysis frequently becomes necrotic.

In felons as in any other connective tissue space such as sub-aponeurotic infection of the scalp or osteomyelitis of the long bone, free and quick drainage is essential. He divides against longitudinal incision over the pad of the finger as it does not allow free drainage and has tendency to close up and requires frequent packing. Kanavel's method of two lateral incisions is superior to the longitudinal incision but does not give the desired quick and free drainage and requires frequent packing. The incision he advises (Fig. 3) starts at the level of the base of the nail on one side and extends in the line of the skin furrows over the tip of the finger to the opposite side. The point on level with the beginning of the incision, thus making a flap of the tip of the finger. A piece of rubber tissue is placed in the



Fig. 4. (Dorrance.) Wound after incision. Method of rapidly reintroducing rubber tissue.

uppermost angle of the wound as shown in Fig. 4. The wound is then dressed with salt solution. The dressings are kept moist and changed every day or so, no packing being required. On about the third day the rubber tissue will come away and the wound will gradually close. For the first few days the wound will appear to have been larger than was necessary but the final results are quickly dispel any such idea.

FRACTURES AND DISLOCATIONS

Voelckler. Diagnosis and Treatment of Fractures of the Region of the Elbow-Joint (Diagnose und Therapie der Frakturen in der Nähe des Ellenbogengelenks). *Med. Klin.* 9, 3, 12, 441, 450.

By Zentralbl. f. d. ges. Chir. L. Gersagheb.

The most important fracture of this region is the supracondylar which occurs as an extension or a flexion fracture, the latter being considerably less frequent. The supracondylar fracture is easily diagnosed by break in the axis of the upper arm, the normal location of the olecranon and the location of the lateral and median condyles. It is the fracture of youth and results from a fall upon the extended hand or upon the flexed fore-arm. Cases without dislocation, crepitation and fracture pain are the essential features. The treatment consists in reposition, with or without narcotics, and dressing in hyperflexion in a Kramer splint or the method of Henssler.

(muslin bandage and cast) may be used. Reduction is effected by backward traction on the upper arm and downward traction on the fore-arm, flexing it to a right angle to overcome the shortening. After two to three weeks active and passive motion is begun under the observation of the physician. The fracture of the external condylar is recognized by the local swelling of the joint, by local sensitiveness to pressure, by the mobility of the condyle, and lastly by the cubitus valgus. In this fracture the symmetry of the three points (both condyles and olecranon) is disturbed. The treatment consists in replacing the fragment and the application of Kramer's splint with the arm in right-angled position. If dislocation is marked, extension is to be preferred. If the condyle is rotated 90° or more, it is necessary to spike it or wire it in its normal location. The fracture of the internal epicondyle is diagnosed more easily. Fixation of the arm for 8 to 14 days is the best treatment. The olecranon is fractured usually by direct force and the fragment is drawn upward by the triceps. The arm must be put up in extension to bring the fragments as near as possible to each other. This can be aided by bringing adhesive strips from upper fragment downward, both sides of the arm drawing the fragment nearer. A fracture of the head of the radius is at times difficult to recognize. Painful pronation and supination of the fore-arm, with the hand upon the head of the radius will confirm the diagnosis. It is best put up in right-angled flexion on Kramer's splint. The splint should remain two weeks in children and three weeks in adults. Active motion may be done at home with safety. The prognosis is good and in spite of the early formation of callus, the result will usually be good.

VONSCHEITZ.

Barreau Injuries to the Condylar Cartilages
(Über C. Knochel-Verletzungen) *Arch. Klin. Chir.*
9 3, Bonn, 1888.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author discusses the mechanism of meniscus injuries and concludes that separation of the semi-lunar cartilages can only occur in normal joints with firm ligaments, and then through forcible rotation of the leg against the femur with simultaneous contraction of the quadriceps muscle. Without this contraction only porous cartilages can be torn from the condyles, and then only by sudden passive extension of the thigh. The greater frequency of injuries of the inner meniscus is due to the habitual outward rotation of the toes.

The diagnosis of injuries of the semi-lunar cartilages is not always easy. The treatment in recent injuries should always be conservative, in older ones operative suture of the cartilage seems of questionable value, and partial resection predisposes to arthritis deformans. The author therefore advises total extirpation of the injured and separated cartilage. A detailed account is given of nine cases treated by operation, among which only one involved the lateral meniscus.

JOSEPH.

Winslow A Case of Complete Anterior Dislocation of Both Bones of the Fore-arm at the Elbow *Surg. Gynec. & Obst.* 9 3, 271, 569.
By Surg., Gynec. & Obst.

This is a case of anterior dislocation at the elbow occurring in a boy aged 9. As he was carrying a bucket filled with water he tripped and fell upon his right elbow producing an anterior dislocation of cubital bones, which was verified by a skiagraphic picture. The fore-arm was somewhat lengthened and semierect. The upper end of the radius and ulna was felt in front of the humerus, while the articular surfaces of the humerus were palpated posteriorly. Reduction was effected by acutely flexing the elbow and pushing the bones of the fore-arm strongly downward.

The interest in this case lies chiefly in its rarity, as, according to Stimson, the number of reported observations has not yet reached twenty-five, even including seven cases in which the olecranon process was broken off and remained in place posteriorly. These dislocations usually occur in the young and are frequently compound. They are generally due to a fall upon the acutely flexed elbow though some cases result from a fall upon the outstretched palm. One case, at least, was due to traction upon the extended fore-arm. Of the cases reported, one died three weeks after amputation and several, being compound, suppurated resulting in impaired function.

Reduction, probably is most readily effected by flexing the fore-arm acutely and pushing downward and backward. In some cases reduction has been accomplished by passing a band around the upper end of the fore-arm and pulling downward, while pressure is made on the humerus to force it backward. Reduction has also been effected by bending the flexed fore-arm around the knee of the operator or the arm of an assistant.

SURGERY OF THE BONES, JOINTS, ETC.

Murphy Arthroplasty *Ann. Surg. & Phila.* 913, 174, 303.
By Surg., Gynec. & Obst.

For clinical purposes ankyloses may be divided into (1) bony, (2) cartilaginous, (3) fibrous (4) peri-articular, ligamentous, capsular and (5) extra-articular. The etiology and management of the conditions are taken up in detail. The main principle consists in interposing between the bones, after their separation, some material which will prevent bony union. Various substances have been used, but the best is a pedicled flap of fat and fascia from the tissues in the neighborhood, or if that is not possible, then a flap of fat and fascia from the trochanteric bursa portion of the fascia lata. Next in importance is the restoration of the normal conformation as nearly as possible, in order that the patient will have as useful as well as a movable joint.

In general, the elements which have contributed most to the failures have been (1) insufficient or defective excision of capsule and ligaments (2)

insufficient interposition of fat and fascia between the bony surfaces (3) infection (4) sensitiveness to pain in motion after operation. The interposing material must cover the entire articular surface of the bones, being attached, however, to only one bone.

The technique in the various joints differs, not in principle, but only so far as necessitated by the individual joint.

Murphy has made use of two incisions for exposing the hip joint. The original one was U-shaped flap about 3 inches wide and 5 inches long with the base up. The incision begins $\frac{1}{4}$ inches above the trochanter and 1 inch behind, extends down about 3 inches below the trochanter, passing under and in front of it then up to a point opposite the commencement, thus placing the trochanter approximately in the center of the U. Another incision is made along the ilio-trochanteric line. It commences about 1 inch below and to the outer side of the trochanter and extends up for about 5 inches in a straight line with the anterior superior spine. These incisions are employed as is demanded by the individual case. The next step is to free the trochanter, leaving its muscles attached to it.

The patella has been handled in four different ways (1) Interposing flap from the vastus externus or internus. (2) Splitting it in two from above down, then turning the upper half under the lower so the smooth aponeurotic surface comes next to the femur. (3) Freeing the vastus attachments to the quadriceps for two inches above the patella next dislocating the patella from side to side during the operation when the limb is straightened out and the flap interposed the patella is separated from the overlying skin and fat by blunt scissors dissection up over the quadriceps and down over the ligamentum patellae to its attachment. So rotation of the patella is made so the upper surface of the patella becomes its articular surface and the prepatellar bursa aids in making lining for the new joint. The upper surface of the patella is trimmed down with forceps until level. The vasti are now sutured to the opposite sides of the quadriceps tendon, whence they were freed, preventing fixation of the patella. (4) Covering the under surface of the patella and entire articular surface of femur with graft from trochanteric zone of fascia lata, without rotation of patella. Good results are had with all of these, but the rotation method is simplest, and after operation gives additional leverage to quadriceps tendon. It has some disadvantages, as it supports the vitality of the skin flaps.

Since adopting this plan, Murphy encountered cases in which so many operations had been performed that even the capsular flap could not be secured. Then he resorted to the final or third means for securing the interposing flap. After denuding the bone and molding its surfaces, removing as much as necessary to tibia or femur completely to extend the limb, he took a portion of fascia lata and trochanteric bursa from the hip and interposed it in mass, in the knee sutured it first

to the posterior condyloid portion of the capsule brought it clear over the anterior surface of the femur and lower surface of the femur and lower surface of patella accurately sutured it on both sides and both ends, so it covered all of the lower end of femur and prevented bony contact.

Having exposed the joint, made the flaps, and separated the patella, the ankylosis between femur and tibia is also covered by "carpenter" chisel, using both grooved and straight as may be necessary. Rotation of patella is not always necessary except when ankylosis is apt to recur.

The author takes up other joints in detail, giving the operative technique.

Prognosis of arthroplasty: 1. Perfectly movable, normally functioning joints with normal sliding and rotary motion can and have been reproduced. 2. A new synovialoid membrane is produced with fluid not synovial but resembling synovial fluid, and lining cells identical with those of the synovium, closely resembling the endothelial cells of normal synovial membrane. 3. These joints support full weight and traction. 4. They are painless once the process of repair is complete. 5. They are not subject to the hematogenous metastatic arthritides of normal joints. 6. A fibrocartilage-like structure develops on the end of the bone, and the latitude of motion increases with time up to the full anatomical limitations in the uncomplicated cases. The production of new joints is not difficult technically nor is it associated with great danger to life. The many details in the interposition of the flaps are essential, and must be systematically carried out to achieve the best results. Ischemia is essential, though not absolutely necessary.

Murphy has devoted much attention to the prophylaxis of ankylosis. He believes the great majority of cases of ankylosis, the result of a metastatic arthritis ("inflammatory rheumatism" which is initiated with chill) are avoidable. He is absolutely convinced that the contortion deformities following metastatic arthritis are avoidable. The acute arthritides, and especially those that have an initial chill, are surgical lesions from the very first day. The initial chill is warning ankylosis probably will occur therefore the limb must be kept in good position from the very beginning, and the inter-articular pressure by involuntary muscle contraction must be overcome. This is best accomplished by Buck's extension. This not only prevents deformity but greatly alleviates suffering, and usually prevents the ankylosis. The plaster cast in acute infectious arthritis favors ankylosis and should never be used. In tuberculosis it favors repair and therefore lessens the likelihood of ankylosis. Extension of sufficient weight to overcome the muscular contraction is the ideal means of preventing deformity and avoiding ankylosis.

Murphy's final conclusion with regard to arthroplasty is that here the technique is carried out properly in a primarily sterile field, the results far exceed his original expectations. They can be secured

uniformly and, when they are not secured, the failure must be charged to some defect in technique or the subsequent management. L. J. MITCHELL.

V Iptis Osteoplasty in Pseudo-Arthrosts of the Tibia (Knochenplastik bei Pseudarthrose der Tibia). *Zentralbl. f. Chir. u. spec. Orthop.* 9 3, vol. 27. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The treatment of pseudo-arthritis of the tibia has been successful almost without exception even in the apparently hopeless cases by uniting both fragments by means of bridgework made of petiolated lamella of bone and periosteum. Technique: A flexible flap of periosteum plus part of the cortical layer of the subjacent bone is cut with a hook-shaped distal extremity almost parallel to the long axis of the proximal fragment beginning immediately above the line of fracture. This is done by means of a chisel. Before turning this flap over into the distal fragment the latter is prepared as follows: Two periosteal lobes are formed the larger one is cut obliquely and folded back laterally the smaller one is a continuation of the larger one at its lower end and is folded back distally. Into the bone thus denuded of its periosteum a groove is chiseled, corresponding in size and shape to the hook-shaped flap about to be overlapped from the upper fragment of bone this groove extends to the line of fracture. A similar channel is made in the proximal fragment, extending from the line of fracture to the base of the osteo-periosteal flap described above.

The preparation being finished the osteo-periosteal flap of the upper bone is laid into this channel, bridging over the two fragments of the fracture and is then covered by the peripheral periosteal flaps which are fixed over this newly placed mass. The parts are then immobilized in plaster of Paris for several weeks.

By Röntgen photos, Volpinus demonstrated the coalescence of the flap with its new bed and its gradual growth in situ. KROER.

Taylor Restoring Mobility After Bony Ankylosis of the Joints. *V Y M J.* 9 3, vol. 13. By Surg. Gynec. & Obst.

This paper is a continuation of some of the preliminary work previously reported. The author first reviews the literature of operative treatment of bony ankylosis of the joints in detail and brings it down to date. He next mentions the different methods used by all operators for reduction of fragments after bony ankylosis as follows:

1. Brassage force.
2. Interposition of foreign non-absorbable substances.
3. Interposition of muscle and fascial flap with nutritive pedicle.
4. Interposition of heterogeneous fascia or membrane.
5. Interposition of autogenous and homogenous fascia or membrane without nutritive pedicle.

6. Interposition of absorbable animal substances.

The author emphasizes the fact that acute and active chronic cases should not be operated upon. After experimentation the author finally hit upon the following mixture as suitable for interposition between joint surfaces after breaking up bony ankylosis. The solution is one part yellow wax and five parts lanolin, melting at about 130 degrees F. The employment of an excessive amount of wax in the articulation is a mistake, as it may cause such intra-articular pressure that the sutures may open. Only enough should be injected to coat over the eroded bone areas.

Traction by Bick's extensor on the lower extremities is useful. One must bear in mind that joints long unused and ankylosed become flat, not rounded, so that if the formation of further ankylosis can be prevented, a useful and functioning joint may be counted upon according to Wolff's law. A rounded articular surface with progressively increasing range of motion with the improved muscular power can reproduce to a certain extent. In operation the bones should be fashioned as nearly as possible like the normal articulation this may be done by chisels and gouges. For the articulation of the femoral head special burrs should be employed. The jig or Gigli saw can only be used when the articular ligaments can be voided, so as to prevent stiff joints. All ligaments, and as much capsule, bone and cartilage as is possible, are to be preserved. A number of cases with histories are next cited, both experimental upon animals and upon patients. These are accompanied by a series of excellent X-ray pictures. The author states that in a number of subsequent operations it was found that patients do better with softer wax mixtures in the proportion of one part of wax to ten of fat.

FREDERICK G. DYAR.

Lexer Transplantation of Joints Obtained from Cadavers (Transplantation von Leichengelenken). *Deutscher Chir. Kong.* 9 3. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Lexer has transplanted joints from cadavers in two cases. In one case infection occurred, and in the second case in which the knee joint of an executed person was transplanted shortly after death, the function was bad and Lexer performed a secondary resection. The microscopic examination showed necrosis of the bone. It makes little difference whether the transplanted bones are vital or not the question is are they not so quickly resorbed that their resistance suffers? Homoplastic transplantsations give still the best prognosis but failures may occur when the recipient is tuberculous or luetic. The great difficulties in heteroplastic surgery arise from the difference in the albumens of the two individuals. Lexer's clinic successful experiments are in progress to make heteroplasty possible by preliminary treatment of the blood serum.

KATZSTEIN.

Goebel Replacement of Finger and Toe Phalanges (Ersetz von Finger und Zehnpfalangen). *Mittheil. aus d. Schweiz. Z. f. Chir.* 9 3, ix, 351.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Following the procedure of Wolf in cases of spina ventosa of a finger phalanx, Goebel replaced the phalanx of the fourth finger in a sixteen-year-old boy by the phalanx of the second toe. Healing followed without reaction. An X-ray picture taken several weeks later showed well preserved transplant. The functional result also was good. Goebel gives this procedure absolute preference over the transplantation of periosteal joint chips between the epiphyses as recommended by other authors. Goebel points to the early return of the normal functions as of special significance in connection with the success of the transplantation. *Rosen*

Körtnier End Results in Transplantation from the Dead and from a Monkey (Dauerresultate der Transplantation aus der Leiche und vom Affen). *Deutscher Chir. Kong.* 9 3.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author demonstrated two specimens of hip-joint transplantation from the cadaver. In the first case the head of the femur was removed from corpse, dead thirty-five hours, and implanted into a patient in whom the head and neck of the femur had been removed for chondrosarcoma. The case was demonstrated two years ago. The patient died thirteen months after the transplantation from pulmonary metastases. In the second case on account of a local recurrence, disarticulation of the hip-joint had to be done and transplantation from corpse three hours after death was used. The findings in both cases were the same: the bone, when examined microscopically, was dead and was slowly being substituted by live bone tissue. Of particular interest was the firm and functionally correct attachment of the articulation to the dead bone. The author also demonstrated a child in whom, on account of a congenital defect of the fibula, he transplanted the fibula of a monkey. The transplanted fibula is completely healed, as is shown by X-ray pictures. *KARLSTADT.*

Frasetto Primary Muscular Sarcoma and Myosarcoma (Sarcoma muscolare primitivo et myosarcoma). *Attila Roma*, 9 3, ix, sez. chir., 86.
By Journal de Chirurgie

After having stated that the occurrence of primary muscular sarcoma is questioned by no one the author contributes a schematic table showing the rapid development and the particular clinical mani-

festations of this tumor. This is followed by a study of the macro- and microscopic, anatomical and pathological characteristics of these growths. The etiology of these tumors has been, and still is, under discussion. For the most part, the majority of them are covered with a limiting capsule, fact of extreme importance from the histo-pathological and therapeutic standpoint. It has lately been demonstrated that the capsule should not be considered as limiting membrane but rather as a zone of invasion and that the macroscopic limitation is microscopically infiltrated. The author claims that it is necessary to perform more radical operations without limiting one self, as has been proposed, to removing the growth only. The operator should take into consideration the possibility that the tumor has broken through the limiting membrane and invaded the surrounding tissue. It is also essential that no deep metastases be allowed to remain.

In the following chapter the author reviews number of cases of muscular sarcoma treated by radical myoelectomy. The following are some of his personal observations. A child ten years of age had had, for 6 or 7 months, a tumor the size of a small nut which occupied the external and anterior portion of the left thigh. For the past 3 months, this little tumor had become painful to the touch while in the past few days it had increased to the size of hen's egg. This circumscribed, smooth, non-fluctuating tumor immobilized by the fixation of the thigh muscles, was rendered mobile with the complete relaxation of these muscles. The overlying skin was normal and unattached no glandular enlargement was perceptible. The diagnosis of primary muscular sarcoma was made. After having crossed the superficial tissues and psoas muscle, the tumor rested in the deep anterior portion of the thigh and it could be removed only by sacrificing the neighboring muscular structures. Seen two years later the little patient was in perfect health in every way, moving the limb freely and walking normally. Microscopically the tumor consisted of oval-shaped fibers and was limited by capsule of muscular fibers. Histologically it was composed of small round cells which at the periphery infiltrated the surrounding tissues in various places.

In conclusion the author states the various observations published demonstrate that, in case of primary muscular sarcoma, radical myoelectomy with extensive removal of the neighboring muscles not only does away with the grave after-results, but also gives good functional results and permits of lasting union such as cannot be obtained by the radical operations formerly practiced. *A. Bower*

ORTHOPEDIC SURGERY

DISEASES AND DEFORMITIES OF THE SPINE

Rothmann The Present and Future of Spinal Cord Surgery (Gegenwart und Zukunft der Rückenmarkschirurgie). *Berl klin Wochenschr* 9 3 1, 325. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Rothmann has collected twenty-one cases of operations in the spinal cord from literature although the first operation was performed in 907. Twelve of these were for intra-medullary tumors, three for extra-medullary tumors which had penetrated the spinal cord secondarily (two for foreign bodies (bullets) in the spinal cord and four for circumscribed foci of various kinds (one tuberculosis, two cysts, one hemorrhage)). Four patients died in five there was no particular clinical result in twelve cases the results were good. He sets forth theoretic considerations for spinal operations. The loss of the posterior columns of the cord can be remedied functionally with comparative ease. The gray substance in one or two spinal segments may be destroyed extensively without causing any other disturbance than local paresis and trophics in muscle regions supplied by them. Only the fourth cervical segment is excepted on account of its relation to the phrenic centers. Even with destruction of the posterior columns, gray substance and anterior columns in man, a may count conduction through the lateral columns, if the lateral pyramidal columns are intact, making it possible to stand and walk and transmit pressure pain and temperature sensations.

The destruction of one lateral column through two or three spinal segments causes paralysis of the extremity on the same side, which, especially in the leg, may cause marked atrophy. It also causes an increase in the pain and temperature sensation in the opposite extremity. There is little chance of restitution to normal functions. According to this, we may venture to operate on foci localized centrally as well as laterally. Moreover he advances the possibility of treating spastic contractures by cutting the posterior columns, unbearable pain by cutting the crossed antero-lateral tracts, atelectasis by cutting the lateral pyramidal tracts. The active participation of a neurologist is essential in these operations.

Wann.

Renzl Surgery of the Spinal Cord (Rückenmarkschirurgie). *Deutscher Chir. Kong.* 9 3 1, 325. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Of five extra medullary tumors, three were cured, one was improved, and one died. Two intra medullary tumors were cured. The prognosis is bad in vertebral tumors and hopeless in cancer, of which there were five cases, with three deaths and two improvements. The suspected tumor was not found in five cases, twice circumscribed meningitis serosa complicated the operation. Three times

decompression was undertaken, once without any benefit once with temporary improvement, and again with permanent good results. In five cases of fracture of the spinal column, the recently recommended early operation was performed, the results being rather unsatisfactory. It had no good effect in two cases of spondylitis. Sixteen operations were performed on fifteen patients for spasm. In spasm of the lower extremities, four successful results were obtained out of six cases, less favorable results were seen in spasm of the upper extremities, and none in atelectosis. In a case of gastric crises, in which double vagotomy had already been performed in vain, Foerster's operation had just as little effect. Altogether in forty cases, there were thirteen deaths, five from the operation, two from meningitis, the latter brought about by incontinence of urine.

Where improvement or cure occurred it took place gradually and was apparent only after a long time. Operations were performed only on one side under general anesthesia. Only a very small opening should be made in the dura, in order to guard against a sudden decrease in the intra-medullary pressure. For the same reason the operation should be performed in Trendelenburg position. The extra-dural sections of the roots as recommended by Guleke offer greater technical difficulties than Foerster's original operation, yet it is a decided advance. The prognosis in spinal cord operations is better than in brain surgery. Four cases have remained permanently cured after periods of from two to five and one half years.

Becker gives a case history in which he recommends puncture with a fine syringe instead of section of the spinal cord.

Kattenström.

Nasta The Treatment of Tabetic Gastric Crises by Foerster-Guleke Operation (L'opération de Foerster-Guleke dans le traitement des crises gastriques tabétiques). *Revue de chir* 9 3 1, 30.

By Journal de Chirurgie.

Nasta reports case of a man 38 years old who entered the hospital because of very severe gastric crises, eighteen months duration. Pain and vomiting had become more and more intense and frequent and no treatment had any effect. On admission the pains were chiefly in the epigastric region, radiating along the base of the thorax which seemed to be pressed as in a vise. There was marked pyrosis and during the crises vomiting was almost constant night and day. Between the crises there were remissions of several days duration, during which the patient was moderately comfortable, but the pains during the crises were so severe that 5 to 20 centigrams of morphin a day was not sufficient to quiet them. They were augmented by pressure in the epigastric region. The patient, moreover suffered with pain in the spine between the fifth and twelfth dorsal vertebrae. The pupils were contracted and

did not react to light. Romberg sign was present. The patellar reflex could not be obtained.

The patient was operated on January 9, 1933 under spinal anesthesia with strychnine and stovaine. Extradural resection of the posterior roots of the sixth, seventh and eighth dorsal segments was performed. The operation lasted three-quarters of an hour. At the end the patient complained of severe burning pains in the lower extremities. The following night he was comfortable. There was no longer any sense of constriction in the epigastrium and he was able to breathe quietly. There was no pain nor vomiting, and on the ninth day he went home. A month later the patient's condition was very satisfactory. He had suffered with none of the previous symptoms since leaving the hospital outside of few burning sensations caused by slight friction. There was diminution of sensibility anteriorly about the malleoli and the breast and posteriorly between the sixth and tenth dorsal vertebrae.

Five weeks after the operation the patient again began to suffer pain beneath the umbilicus though this was scarcely comparable with his previous suffering. There was no vomiting and no sense of thoracic pressure. Apparently insufficient number of roots had been resected. (M. C. C.)

MALFORMATIONS AND DEFORMITIES

Thomas. Report of a Case of Talipes Congenitalis Absence of the Femur. *Cleveland M. J.* 1933, 28, 3. By Surg. Gyroc. & Obst.

The author reports an unusual anomaly — total absence of the femur (phocomelia) in an infant of three months, born of a syphilitic mother. The child showed signs of congenital syphilis a few days after birth which readily responded to treatment. Shortening of the leg was quite noticeable from the beginning, because of which an X-ray picture was taken revealing the anomaly. (CRAIG M. JACOB.)

Hammock. Talipes Equinus Deformity. *Am. J. Surg.* 1933, 45, 104. By Surg. Gyroc. & Obst.

The article is a description of the author's method of employing kangaroo tendon as suture material in nine cases of talipes equinus. In patients over eight years of age Hammock lengthens the tendon by means of an inverted L incision in the tendo achilles and uses the cut ends of kangaroo tendon to quilt the edges of the tendon from above down and in place of ordinary paraffin silk. The advantages of this material are its tensile strength and absorbability. (P. O. P. SWIFT.)

SURGERY OF THE NERVOUS SYSTEM

Eden. The Treatment of Tendo- and Neurolysis with Transplantation of Fat Tissue (Tendo- und Neurolysis mit Fettplastik). *Deutscher Arz. Kongr.* 93. By Zentgraf, J. d. ges. Chir. u. Gynäkol.

In the Lexer clinic fat was used in six cases of tendo- and neurolysis to cover the defect. The tendolysis was due to secondary destruction of the extensor tendons and complete functional result was obtained by transplanting fat to make up the defect. Among the six cases of neurolysis one case was not re-examined and the other was operated only four weeks ago. Of the remaining cases two a media nervi parvus due to malarial infection and the other radial parvus due to fracture of the radius. In both cases the nerve was liberated from the scar and surrounded with fat, resulting in complete cure of the parvus.

HAYWARD in discussion reports four cases of fat transplantation from the Lexer clinic. They are cases of partial or complete removal of the mamma on account of benign tumors, in which the defect was replaced by a topoplasmic transplantation of fat. The cosmetic result was good. (KATZENSTEIN.)

Foerster. The Indications and Result of the Excision of Posterior Spinal Nerve Roots in Man. *Surg. Gyroc. & Obst.*, 1933, 28, 463. By Surg. Gyroc. & Obst.

The first indication for excision of the posterior spinal nerve roots, according to Foerster, is based

upon the physiological function of the same as conductors of sensibility and by violent neuralgic pains which defy other methods of relief. He reports 43 cases under this heading with the following results: successful 3 failures, and results unknown. In the majority of cases the failure was due to not having excised enough roots. In cases of tabes the severe lightning pains he proved that for continuous relief of pain a great number of roots must be cut. Exceptions are seen only in those cases in which a localized section of one or a few single roots can with certainty be stated.

The second indication for resection is the visceral, especially the gastric crises in tabes. In this group he reported 64 cases, 50 were successful, 1 failure, and 6 died. The cause of the more or less imperfect result was attributed to failure in radical root resection, due to the difficulty in recognizing and isolating them from the spinal cord, owing to constant anastomosis. In some cases relapse is due not to failure of radical resection, but to irritation of blood flowing during the operation into the net of the arachnoid.

The third indication for resection is spasticity and spastic paralysis due to disease of the cortico-spinal path, especially the pyramidal tract. Of this group Foerster collected 39, 14 died, thus making mortality of 35.9 per cent. He gives in detail several case reports also showing remarkable improvement following resection. Aside from this condition, resection of posterior roots has also been recommended

for some other motor disturbances, especially atetosis. The results in the cases were mostly bad, as the condition depends not upon an increased afflux of sensory stimuli to the gray matter of the spinal cord, but to an increased afflux of motor impulses proceeding from middle brain and carried by motor paths to anterior spinal horns. Leriche has divided some posterior cervical roots in case of Parkinson disease with as he says, satisfactory result.

After reviewing the cases he enumerates the single indications and contra indications for resection of posterior roots in spastic paralysis. First the morbid process must be stationary or progressing very slowly. Secondly must be a mind that the resection of the posterior root relieves all the spastic symptoms but not the paralysis thereof.

certain residue of the innervating pyramidal fibres must be conserved, or else the spastic paralysis is transformed into a flaccid one. Thirdly after the root resection and the return of voluntary mobility a long and very careful exercise treatment is necessary by which alone locomotion is gradually gained. Fourthly the disappearance of the spasticity after the root resection, taking place with the certainty of experiment, is the best proof of the sensory origin of the spastic contracture. But a certain degree of spasm sometimes returns, owing to the fact that the spinal gray matter is gradually recharged by the remaining posterior roots.

In conclusion he recommends the use of electrical apparatus of stimulation in distinguishing between the anterior and posterior roots.

R. W. McNEAL

DISEASES AND SURGERY OF THE SKIN FASCIA APPENDAGES

Scholtz. The Treatment of Lupus (Die Behandlung des Lupus). *Zentralblatt für Chirurgie* 9 3, 12, 95.
By Zentralblatt für Chirurgie. Greifswald.

For the successful treatment of all cases of lupus great care and patience are of fundamental importance. Even the brilliant success of the Finster Institut is largely due. Less expensive though more complicated, methods are followed by equally good results. When possible excision followed by suture is the method of choice. Under good technical conditions the defect may be covered by plastic flap. The size and location of the area alone determine the limits of the method. Whereas Finsen rays have no effect upon the small nodules surrounded by hard scar tissue upon rapidly hypertrophied tips and upon those affecting certain areas of mucous membrane. The curette and Paquet's cautery alone are not sufficient and the same is true of the hot-air treatment advocated by Hollander. Regarding the value of the diathermic treatment no definite statement can as yet be made. It seems, however, to certain degree to select the diseased tissue. This applies even more strongly to the tuberculin light and Röntgen-ray treatments, as well as to the application of the caustic ointments of arsenic, salvarsan, neosalvarsan resorcin and above all of pyrogallate. The remotest effects are treated with advantage by Röntgen-rays or radium. Tuberculin, caustic, light and Röntgen-rays produce results on lupus tissue by setting up inflammatory or necrotic processes. Chemotherapy (salvarsan and copper leucethin injections) seem to produce beneficial results. Severe cases always call for combination of methods, and in the selection of the proper combination lies the secret of success. The author usually pursues the following course. Tuberculin injections followed by quartz-rays with compression. After the inflammatory phenomena subside, tuberculin is

applied rectified, and pyrogallate ointment applied. When the eschar separates quartz-rays at a distance of 20 cm. are used. When the reaction from this has abated, Röntgen-rays are applied, followed by pyrogallate ointment. Then follow quartz and Röntgen-rays again and, when the skin has healed it may be necessary to use the Finsen-rays. During the whole course of treatment tuberculin injections are given regularly at intervals of 3-5 days and in large doses.

HARRIS

Wiener. Skin Grafting Without Dressing. *J. Am. Med. Ass.* 9 3, 12, 350.

By Surg. Gynec. & Obst.

The author directs attention to the great advantage of dispensing with dressings after skin grafting. Wiener's technique is as follows. The grafts are cut as thin as possible and applied in the usual manner; any discharging slough is packed with gauze and the packing renewed whenever it becomes saturated. On the first or second day crusts of impregnated serum form between the grafts. These should not be removed and for at least a week no dressing of any kind is applied. The grafts become adherent after the first day or two and assume healthy pink color. On the seventh or eighth day the entire grafted area is covered with a weak ichthyol ointment. Under this the crusts between the grafts fall off and the grafted area soon assumes a normal appearance. It is not advisable to apply any wet dressing until at least two weeks after the grafting. If pulled sooner the grafts may macerate and lose their vitality. In grafting the extremities, the limb is swung free of the bed-clothes. In grafting the trunk, cradle to keep off the bed-clothes is all that is needed. The results from this method of grafting, even in the most difficult cases, have been far superior to those obtained with dressings.

MISCELLANEOUS

CLINICAL ENTITIES — TUMORS, ULCERS, ABSCESSSES, ETC.

Lissauer Recent investigation on Tumors
(Neuere Arbeiten über Geschwülste) *Med. Klin.*
9.3.19. 420

By Zentralbl. d. ges. Oyn. u. Geburtsh. d. Grenzgeb.

Roman report three cases of chloro-myelogenous leucemia with green discoloration of the affected gland leucemic infiltrations and nodules Warstat describes case of myeloma of the dorsal vertebra (plasmacellular myeloma) Hertzog reports case of intestinal carcinoma associated with tuberculosis histologically could be also have favored the carcinomatous development The author explains the fact that the determining factor in the development of carcinoma lies in the primary transformation of the epithelium Habre gives an example of the occurrence of carcinoma with lymphoma, citing case in which epithelioma of the lip developed on the base of lymphatic keratoma rich and Namba describe a case of carcinoma of the appendix which is of interest for the reason that the epithelial proliferation extended into the mesenteric omentum These three consider these three more typical carcinoma which existed primarily and in which the inflammatory processes are of later development Rothke reports papillary cyst of the ovary with independent neomatous and sarcomatous development

Von Lamezan concludes from a series of experiments on rabbits by injection of fluid that the epithelial proliferations demonstrated by Fischer have nothing in common with carcinoma Strauch as the first has produced carcinoma by transplantation in mice of pure microscopically the multiple metastases had occurred such as only found in cases of spontaneously developing tumors If like likewise supports the analogy between carcinoma of milk and meat on the ground that there are numerous metastatic growths and an infiltration with both the inoculated and spontaneous carcinoma Simmonds contributes a case of tumor of the thymus gland Tumors of this organ are carcinoma, sarcoma or thymoma as demonstrated by the histological granules in the metastases The author concludes with quotations from the statistics of Theilhaber on the mortality of cancer in Berlin and of Pelpier on the occurrence of malignant tumors in the German colonies. von G. 1919

National Newer Ideas Concerning the Problems of Cancer Etiology *Med. Rev.* 1919, 1920, 1921
By Surg. Gynec. & Obst.

The older theories of neoplasia are first reviewed and criticized then the most recent facts and theories are brought out and the same time new and original ideas on the subject are suggested The following criticisms are made of the various theories

(1) Cohnheim Does not explain the origin of all tumors, nor the reason for or the stimulus to, sudden division of the cell rests.

(2) Ribbert's von Hensman and Altmann Do not show the causes for the sudden change from the normal to the abnormal.

(3) Hensman Deals too much with heredity and does not explain those tumors following injuries or irritation.

(4) Hertel Does not explain why certain cells proliferate in malignant manner nor have the theories of bromatin the cell nucleus been proven In the parasitic theory while practically every form of micro-organisms has been accused, none has been satisfactorily proved, although any may be predisposing cause of precancerous cell degeneration. All theories fail to explain the cause or causes of cancer and other growths.

The theories from studies of yeast and half advances biochemical hypothesis as the cause of neoplasia. Primarily some form of cell or tissue degeneration is necessary and is due to one of the groups of factors Interference with the blood supply or nutrition. (1) Mechanical (2) chemical (3) physical (4) parasitical (5) functional disturbances This is the primary precancerous stage. Secondly these primary areas show a strong affinity for certain inorganic blood salts and marked change in their chemistry and osmotic balance. This secondary precancerous stage.

The investigations of Ringer and Soelz Moore, Roal and White, Rowe and Cropper and Carrel are cited as showing that by slightly altering the tension, alkalinity or inorganic salt content of tissue medium sudden stimulus may be given to its growth Carrel is also quoted as showing that normal connective tissue growth in vitro may be accelerated three to forty times by extracts and juices of tissues. The author then states that normal cell reproduction is due to a fixed ratio between the salt in the blood lymph and tissues, and an intact chemical structure of the cell. If it not be possible it asks that a disturbance of these factors could result in typical growth in the locality involved.

McClellan Mitchell and Little are quoted as finding that increased cell growth metabolism and oxidation may also be due primarily to increased permeability of the cell membrane. All these cell characteristics, i.e. growth, metabolism, oxidation, and permeability may be accelerated by change in amount of inorganic salt content or of — Oil soluble in the medium. In pathological conditions there is

definite affinity between dead and dying tissue and certain inorganic blood salts, especially magnesium and calcium. As gradually increases the local salt content and, due to this influence, the neighboring cells become more permeable and absorptive thus growing faster and proliferating more, as coor-

pared to other parts of the body. No specific substance or excitant has been defined, though Ross of London suggests various ones. Calkins, Bullock and Rohdenburg also bear this out. The action of inorganic salts in stimulating cell growth is shown by Webb and Mann to be due to their electrolytic property.

Of the fats in the cell, lecithin and cholesterol mainly influence the growth. Abderhalden, Bain, Robertson and Burnett are cited in this effect. The possibility of enzymic action as accelerating cell growth should be taken into consideration. Carrel showed the similarity between these extracts and enzymes. Ross's work on chicken sarcoma is quoted as bearing on the possibility of chemical substance influencing cell growth.

In adapting these theories to the cancer problem the author states that it is the site of greatest irritation and cell death that shows the most likelihood to malignancy, i. e. the stomach, breast, and skin. The questions of sex and age incidence of cancer may be explained on these same grounds. I. e. the uterus and breast being subjected to greater irritations, are more liable to pathological changes and that old age is the greatest time of degeneration of tissues and upset cellular chemical equilibrium. The influence of heredity is indefinite but may be explained by precancerous environment or transmission of precancerous conditions of susceptibility and metabolism. The rate of growth and malignancy of a tumor would depend as much upon the tissue involved as upon the stimulus. Increased growth of epithelial and connective tissue cells grow faster than muscle, nerve or bone cells. Metastases are due to direct transportation of cells from origin by blood or lymph aided by loosened general or local tissue resistance.

The symptoms of malignancy are explained by the absorption by the tumor cells of the food and salts in the blood and lymph to the detriment of the other tissues. Likewise the inability of these latter to give off their waste product results in more or less auto-intoxication. P. M. C. use.

Lambert Comparative Studies upon Cancer Cells and Normal Cells. II The Character of Growth in Vitro with Special Reference to Cell Division. *J. Exp. Med.* 3, vol. 409.

By Surg. Gynec. & Obst.

Lambert presents his observations on the general character of growth in vitro of transplantable rat sarcoma and of normal connective tissue cells. The latter cells were grown from small pieces of blood vessel. It was found that primary cultures sarcoma cells exhibit much greater activity than do normal connective tissue cells there is a shorter latent period, an earlier period of growth, and cell multiplication proceeds more rapidly. Sarcoma cells are less active in secondary cultures, while connective tissue cells show markedly accelerated growth. Connective tissue cells are more easily grown over long periods in vitro than

are sarcoma cells they multiply rapidly in cultures over three months old.

Atypical mitoses of several kinds are found in cultures of sarcoma cells, but are not seen in growths of connective tissue. The time required for division in rat connective tissue cells at body temperature varies within narrow limits (20 to 30 min.) sarcoma cells exhibit marked variations and several hours may be required. Amitotic division has not been observed in either normal or tumor tissue. Evidence of nuclear budding however with the formation of cells containing several nuclei of irregular size have been noted. JAMES F. CRUMBELL.

Sutton Mycetoma in America. *J. Am. Med. Ass.* 9 3, 12, 392. By Surg. Gynec. & Obst.

Sutton adds to the literature of five previously reported cases of Mycetoma foot in America, two of which have recently been under observation in Kansas City. He presents in full the case histories with photographs of the lesions. Both patients were in the habit of living active outdoor lives in a subtropical country, one a male native of Mexico the other female native resident of Texas.

In a statistical study of one hundred cases of mycetoma Bocarro found that 91 spent the greater portion of their time barefoot in the open air. Eight were females, seven being the wives of agriculturists. The disease occurred most frequently between the ages of 15 and 40. Bocarro found that the causative organism most frequently gained entrance through the wound left by a thorn prick. The disease usually affects the feet though other exposed parts were attacked.

Clinically mycetoma may be divided into three varieties the yellow or ochroid the black and the red so named because of the color of the small masses or granules suspended in the oily seropurulent discharge from the sinuses. The ochroid is the most common type while the red is exceedingly rare. It is probable that all types of mycetoma are due to streptothrix infection, but whether all forms are caused by an infection with the same organism, or whether more than one species plays a part in the disease, can not at this time be stated positively. L. G. DUNN.

Coffe The Identity of Cause of Aseptic Wound Fever and So-Called Post-Operative Hyperthyroidism and Their Prevention. *J. Surg. Pathol.* 9 3, vol. 648. By Surg. Gynec. & Obst.

In this article the author again emphasizes the importance of exclusion of harmful physical and traumatic stimuli in operative work for which he previously coined the name anoci-association.

He concludes from his observations that the rise of temperature and pulse rate in aseptic wound fever and post-operative hyperthyroidism are the result of the conversion of energy into heat as a part of the activation of the brain, hence all of the body by the psychic and traumatic stimuli.

The fundamental principle upon which he bases

MISCELLANEOUS

CLINICAL ENTITIES—TUMORS, ULCERS, ABSCESSES, ETC.

Liesauer Recent Investigations on Tumors
(Neuere Arbeiten über Geschwülste) Med. Klin.

O. J. 420
By Zentralbl. f. d. ges. Gymn. u. Geburtsh. d. Grenzgeb.

Roman reports three cases of micro-myelogenous leucemia with green discoloration of the affected gland leucemic infiltration and nodules Warst cites case of myeloma of the dorsal vertebra ("plasmacelluläre myelom") H. Lang reports case of intestinal carcinoma associated with tuberculous such histologically could be shown to have favored the carcinomatous development The author accepts the idea that the determining factor in the development of carcinoma lies in the primary transformation of the epithelium Habre gives an example of the occurrence of carcinoma (thymopharyngeal case in which epithelioma of the lip developed on the base of epithelioma of the lip) Mikulicz and Namba describe case of carcinoma of the appendix which of interest for the reason that the epithelial proliferation extended into the mesentery of it These authors consider that the carcinoma carcinoma which existed primarily and in which the inflammatory processes are of later development Rothacker reports papillary cyst of the ovary with independent anovulation and sarcomatous development

Von Lamezan concludes from series of experiments on rabbit to inject of soda oil that the epithelial proliferations demonstrated by Fischer are nothing common in carcinoma Strassburg was able after having produced carcinoma by transplantation to make it prove macroscopically that multiple metastases had occurred such results found series of spontaneously developing tumors Hanzke likes to support the analogy between carcinoma of mice and man on the ground that there are numerous metastatic growths and infiltration with both the inoculated and spontaneous carcinoma. Simmonds contributes case of tumor of the thymus gland Tumors of this organ are carcinoma sarcoma or thymoma as demonstrated by the H. and granules in the metastases The author concludes with quotations from the statistics of Theilhaber on the mortality of cancer in Berlin and of Pelpel on the occurrence of malignant tumors in the German colonies

Bristol Newer Idea Concerns the Problem of Cancer Etiology Med. Rec., O. J. 420, 187

By Surg. Gynec. & Obst.

The older theories of neoplasia are first reviewed and criticized, then the most recent facts and theories are brought out, and at the same time new and original ideas on the subject are suggested. The following criticisms are made on the older theories

(a) Cohnheim Does not explain the origin of all tumors, nor the reason for or the stimulus to a sudden increase of the cell rests.

(b) Ribbert's von Haasman and Adam's. Do not show the causes for the sudden change from the normal to the abnormal.

(c) H. Ver. Deals too much with heredity and does not explain those tumors following injuries or irritations.

(d) Hertel's Does not explain why certain cells proliferate malignant masses nor have the orders of bromatin the cell nucleus been proven. In the parathyroid theory hide practically every form of micro-organisms has been caused none has been satisfactorily proved although it may be a predisposing cause of precancerous cell degeneration. All theories fail to explain the cause or causes of cancer or other growths.

The author from theories of year and half advocates biochemical hypothesis as the cause of neoplasms. Primary some form of cell or tissue degeneration is necessary and is due to one of two groups of factors interference with the blood supply or with the (1) Mechanical (2) Chemical (3) Physical (4) Parasitical (5) Functional disturbances. This is the primary precancerous stage. Secondly these primary areas show a strong affinity for certain inorganic blood salts and marked change in their chemistry and metabolism. This is secondary precancerous stage.

The investigations of Ringer and Soeb Moore, Ross and Whitey Ross and Cropper and Cartel are used showing that by slightly altering the tension of osmotic or inorganic salt content of a tissue used as sudden stimulus may be given to its growth. Cartel is also quoted as showing that normal connective tissue growth, in vitro, may be accelerated three to forty times by extracts and juices of tumors. The author then states that normal cell reproduction is due to fixed ratio between the salt in the blood, lymph and tissues, and an ultrastructural structure of the cell. May it not be possible he asks, that disturbance of these factors would result in a typical growth in the locality involved.

McClendon Mitchell and Lillie are quoted as showing that increased cell growth metabolism and oxidation may also be due primarily to increased permeability of the cell membrane. All these cell characteristics, i.e. growth, metabolism, oxidation, and permeability may be accelerated by change in amount of inorganic salt content of or of — O₂ ions in the medium. In pathological conditions there is definite affinity between dead and dying tissue and certain inorganic blood salts, especially magnesium and calcium which gradually increases the local salt content and, due to this influence, the neighboring cells become more permeable and absorptive, thus growing faster and proliferating more as com-

through which vessels are drawn, then turned back and held in place by small hooks attached to the tubes. The connection is made between the external jugular and the superficial vein of the forearm. The apparatus is so constructed that two ends of the vessel will be brought together and held in place by means of the apparatus alone.

C. G. GRUBER

Popielski. Remedial Agent Which Specifically Checks Coagulations and Decreases the Blood Pressure in the Female Genitalia. (Über die spezifischen gerinnungshemmenden und blutdruck herabsetzenden Substanzen des weiblichen Genitalapparates.) *Biochem. Zettel* 9, 3, 15, 68.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

Popielski states the work of Schucke in which a specific effect of hecking coagulation and decreasing blood pressure is attributed to uterine and ovarian extracts, because the same results may be obtained with other organs, etc. The arrest of coagulation is not caused by tissue or ovarian hormones but by the presence of the extracts used in the investigation. The action of uterine or ovarian extract on the blood stream does not show any action different from that of other organic extracts. The action of all of these is the same, producing decreased blood pressure and loss of coagulability. This behavior is produced by substance which Popielski found hemolytic and named vasodilator.

BORCA.

Leale. Thrombophlebitis of the External Iliac Vein. *J. Am. Med. Assn.* 9, 3, 1, 51.
By Surg. Gynec. & Obst.

Leale considers particularly the symptomatology and differential diagnosis and reports also complicating typhoid fever. The great relative frequency of thrombophlebitis of the left leg can be explained by the tendency to obstruction of the left external and common iliac veins by the left common iliac and external iliac arteries and particularly the left internal iliac artery as it arches around the fifth lumbar vertebra and the tenth vertebral disk.

Thrombophlebitis in any vein is usually due to bacteremia or toxemia resulting from the surgical infections or infectious diseases. In most cases a constriction of the vessel wall is needed to bring about thrombus formation even in the presence of a bacteremia.

Palpation will at times reveal the thrombosed external iliac vein in the space running upward, inward and backward from the point little to the inner side of the middle of Poupart's ligament passing over the brim of the pelvis to the point of the lumbosacral articulation and opposite the sacro-iliac joint.

The earliest and most helpful sign in diagnosis of this condition is the peculiar rapid, step-like rise in the pulse which often mounts to a considerable height.

L. G. DWAN

Enderle. Thrombosis of the Portal Vein Following the Effect of Blunt Force to the Abdomen. (Thrombose der Pfortader nach Einwirkung stumpfer Gewalt auf das Abdomen.) *Beitr. z. klin. Chir.* 9, 3, 1, 11, 750.

By Zentralbl. f. d. ges. Chir. u. L. Grenzgeb.

The author reports a case of this rare affection (only six cases have been reported). The patient was brought to the clinic three and one half months after the injury suffering from symptoms which were diagnosed as due to duodenal ulcer. A laparotomy however did not confirm the diagnosis, nothing pathological could be found. The patient died one and one half months after Autopsy. In the right lobe of the liver was found a concentric laminated thrombus the size of a fist, situated partially within the right portal branch and reaching to the main vessel.

In regard to the treatment of portal thrombosis it seems more rational to the author to perform an anastomosis between the portal vein and the renal vein than to perform the Palma operation.

KROCK.

Ottenberg, Kallak, and Friedman. Experimental Agglutinative and Hemolytic Transfusions. *J. Med. Research* 9, 3, 1, 11, 14.

By Surg. Gynec. & Obst.

These authors have attempted by a series of experiments to determine what would happen if hemolytic or agglutinative blood was transfused directly between two animals of the same species. As yet their work is incomplete and does not lead to final conclusions but still presents a number of interesting facts. By suitable technique, isogglutination and isohemolysis can be demonstrated to occur between the bloods of different dogs. Isoagglutinins occur naturally and it is possible that the immune isogglutinins produced by von Dungern and Hirschfeld are merely intensifications of these. No sharp grouping could, however be made out in the naturally occurring agglutinins. Natural (as distinguished from immune) isogglutination is, however a relatively weak phenomenon.

The direct transfusion of blood, whose red cells can be agglutinated and laked by the recipient's serum, is followed by destruction of the transfused blood with an intense intoxication. It is not yet clear whether agglutination plays any part in this result or whether it is due entirely to hemolysis.

A very remarkable blood-picture, presenting many of the morphological forms peculiar to pernicious anemia, is produced when the blood of another animal of the same species is destroyed in the circulation. In the authors' experiments this was not due to anemia, as the animals' own blood was not destroyed and there was no reason to believe they were anemic. The changes must have been due to some peculiar toxic effect, on the bone-marrow of hemolytic blood destruction.

GEORGE E. BELLAY

BLOOD AND LYMPH VESSELS

Bellin. Circoled Aneurism of the Hand. *J. Med. St. M. Soc.* 93, 21, 25. By Surg. Gynec. & Obst.

The author reports the case of a steam-fitter who, on August 1, 9, tried to stop sliding steel casing with his right hand. His hand was hyper-extended at the carpal joint by the great force and he felt a sharp pain. The next day the veins on the dorsum of the injured hand were very much swollen. A few weeks later some of these veins were considered varicose and were excised, but the swelling returned immediately accompanied by profuse perspiration and intolerable pain.

Pulsation of the swollen hypothenar was noticed on April 26, 9. Diagnosis of aneurism of the superficial end-branch of the ulnar artery with a venous communication was made. At operation, April 9, a sac, formed by a blood vessel, three inches long was removed. The wound healed by first intention, the patient remaining well until May 3 when the symptoms returned. On May 3 the end-branch of the radial artery was ligated and relief from the pain lasted for four weeks only. On June 9 a communicating branch of the radial vein between the first and second metacarpal bones was ligated. On the 15th, an excision of the blood vessels and veins with ligation of the dilated veins on the volar side was performed. On July 20 and August 21 two more ligatures were applied, but the relief in each case was only temporary. Finally the little finger with the whole metacarpus was removed. Still the dilated veins persisted and the superficial vein above the elbow became enlarged. An aneurism was naturally expected, but microscopy of the removed finger showed no malignancy. After a few weeks all the distressing symptoms were obvious. The necessity of an amputation of the forearm became imperative. The patient recovered and is well at the present time, having gained twenty pounds since the removal of the painful condition.

The pathological findings showed that the vessels had greatly dilated lumina and much thickened walls. The vascular changes are chronic, probably congenital, and the condition developed after trauma, as has been observed in number of cases of this rather rare and interesting condition.

EDWARD L. CONNELL.

Haythorn. Tuberculous of the Large Arteries with the Report of a Case of Tuberculous Aneurism of the Right Common Iliac Artery. *J. Am. M. Ass.* 93, 12, 143.

By Surg. Gynec. & Obst.

Tuberculous lesions of the vascular system have long been of interest as points of distribution of bacilli in cases of general miliary tuberculosis. The case reported is of interest because of its rarity and because it gave rise to the presence of great numbers of tubercle bacilli in few glomeruli in the kidney where they caused little or no reaction in the tissue

about them. The absence of inflammatory reaction in the kidney probably indicates that the patient had reached a stage in which his system of defense was so exhausted that it could no longer react against the stimulus of the toxins.

Four general types of tuberculous lesions of the aorta and its main branches have been described:

1. Miliary tuberculosis of the intima.

2. Polyp of tuberculous thrombus attached to the intima.

3. Tuberculosis of the wall, involving the several layers.

4. Aneurisms, the walls of which are composed of tuberculous thrombus.

Haythorn's case belongs in Group 4.

L. G. DWAN.

Ferrarial. Primary Tumors of the Vascular Sheaths (Sur les tumeurs primitives des gaines vasculaires). *Clin. chir.* 93, 16, 130.

By Journal de Chirurgie.

The classic premises on tumors of the vascular sheaths are the pioneer works of Langenbeck, 186 and that of Reynault, 87. Since the appearance of the last of these, certain new growths have been eliminated from the classification of primary tumors of the sheaths, such as bronchial epithelioma, whose pathogenesis is very individual, and also sarcomas and lymphosarcomas in the neck whose origin is from lymph glands. Since this reduction, Koss has expressed doubt as to the existence of primary tumors of the vascular sheaths, and Jordan also denies their occurrence. The latter believes the term should be dropped, since he considers that they are all secondary. Ferrarial demonstrates the legitimacy of the original classification. He believes in the existence of primary tumors of the vascular sheaths which have definite characteristics, which allow them to be differentiated from an anatomical or clinical point of view. He presents three personal cases, a lipoma of the carotid sheath, fibrosarcoma of the femoral sheath, and a lipoma of the femoral sheath. In each case operation showed that the tumor was provided with thin capsule which was in many continuous with the peroneum of the neighboring muscles, and that the tumor moreover had developed in the center of the vasculo-nervous bundle whose elements are dissociated by it.

The author has studied the anatomy of normal vascular sheaths and has cleared up certain widely accepted errors. The vasculo-nervous bundle possesses, as a whole, a fibrous sheath within this, each element — artery vein and nerve — possesses an independent sheath of connective tissue. The spaces between the common outer sheath and these individual sheaths is filled by a loosely woven tissue rich in fat and containing many lymphatic channels. He believes that the connective tissue partitions described in such detail by certain authors, are artifacts or purely imaginary. These conclusions are supported by histological preparations, illustrations of which are given.

From the literature Farrarini has gathered a score of cases in which fibromas, myxomas, lipomas, sarcomas, and endotheliomas have definitely arisen in the constitutive elements of the vascular sheaths. Farrarini accepts the characteristics of these tumors described by Reynault. Tumors of the vascular sheaths are characterized by their anatomical sit in region occupied by a large vascular bundle.

They are fixed when the vascular bundle has a strong sheath, as is usually the case but when, as in the neck, the sheath is delicate, they are somewhat mobile. 3. These tumors frequently possess prolongations which then occur along the axis of the vascular bundle. 4. Usually the vessels are not displaced and the arterial pulsations are felt over the surface of the tumor or transmitted through it. 5. Circulatory disturbances are frequent and occur early. None of these signs are pathognomonic and definite diagnosis can hence only be made when at operation it is found necessary to incise the common vascular sheath in order to reach the tumor. In such cases it is usually be found that the point of origin of the tumor is from the individual sheath of one of the vessels lying within the common sheath.

FRANK FARRARINI

Wetting. Cold Gangrene Does Not Vascular Paralysis (Gefässparalytische Kältegangrän) *Zentralbl. f. Chir.* 9, 1, 1903

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

The author had occasion to observe a number of cases of gangrene of the toes due to freezing during the Balkan war. Etiologically the most important factor in the production is prolonged exposure to cold and lowered resistance of the tissues, due to general and local influences, such as insufficient food, dysentery, cholera, and neglect of the feet. Although most of the cases developed immediately nevertheless there were cases which did not develop until six to ten days after the onset of an enteritis or dysentery. He does not believe the gangrene is due to thrombosis, but to vascular changes following prolonged exposure to cold in weakened individuals. As proof of this contention the author states that as soon as the general conditions, especially nutrition, were improved, the number of gangrene cases dropped considerably. After detailed discussion of the clinical phenomena he concludes that the important factor of the disease is the vascular paresis due to injury of the nerve supply of the vascular structures leading to thrombosis. In regard to treatment he advises to act conservatively. Further observations along these lines will be detailed later in an extensive monograph. KNOTT.

Neuhof. Experimental Ligation of the Portal Vein; Its Application to the Treatment of Suppurative Pylephlebitis. *Surg. Gynec. & Obst.* 9, 2, 431. By Surg., Gynec. & Obst.

The author attributes the belief that there is no surgery of the portal vein to the fact that ligation of

this vein in animal experiments has regularly led to death in a very short time. This was first demonstrated by Ore in 1856 and has been repeated by Schiff, Claude Bernard and others. Death in this experiment has been attributed to different causes. Claude Bernard thought it was due to an acute anemia, and Schiff to cessation of liver function. The author cites evidence that neither of these views is the correct one, and from the symptoms and post-mortem examination of animals in which the vein was ligated, the conclusion was reached that death (which always took place in fifty to ninety minutes after the ligation) was due to shock. Solowiewski is credited with demonstrating that the portal vein could be entirely occluded, if at successive operations the branches were ligated singly and the author describes experiments which confirm this work. It was also demonstrated that successful ligation could be accomplished by gradual occlusion at successive operations. The collateral circulation in each case developed very quickly mainly in the gastro-hepatic omentum and such collateral circulation, being hepatopetal, preserves the liver function.

The article is concluded by some general remarks on the practical application of this knowledge to the treatment of suppurative pylephlebitis. Case reports are quoted showing that complete occlusion of the portal vein in man is at times compatible with good health. The great danger of suppurative pylephlebitis, which is almost universally a fatal disease is attributed to extension of the infection into the liver. This would be prevented by portal vein ligation and the author suggests such a procedure as the treatment. As to whether the ligation should be done at once or in successive stages, the author is inclined to believe that in at least those cases which are most likely to come to operation, that is, those having existed for some time, the collateral circulation is perhaps well enough established to permit complete ligation. Even in those in which the thrombotic process has extended above the highest accessible surgical level, the author suggests the possibility of benefit following ligation through the thrombus wing to the fact that such would at least greatly diminish the area of the source of infection. Omentopexy should be combined with the ligation for the reason that it offers an additional possibility of collateral circulation.

BARNETT BROOKS

Joachimsthal. The Etiology and Preventive Incision of Elephantiasis (Über die Ursache und Schutzoperation der Elephantiasis) *Klin. Wochenschr.* 23, No. 40.

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

Elephantiasis (arabum) is found endemically on the Japanese coast and on many of the islands. It also occurs endemically on the western coast of Shikoku. Each case develops after repeated attacks of erysipelas. The geographical distribution of elephantiasis does not coincide with that of filariasis.

I. J. Pan. Among elephantiasis patients the author was able to demonstrate only twenty-seven per cent filaria carriers. Filaria is an accidental complication of elephantiasis, and may predispose to the latter disease. Among 4,500 elephantiasis patients, the author regularly found a strain of streptococci which are not pathogenic to guinea-pigs and rabbits but which after subcutaneous inoculation into the human regularly produced typical attack of erysipelas within six to twenty hours. Agglutination of these streptococci occurred with 500 diluted serum of elephantiasis patients. They are found only in the peripheral blood between the second and sixth day after the attack and are never found in the arterial or venous blood during the quiescent stage. A week after the attack they cannot be found at all. They produce first a dermatitis, lymphangitis, later lymph stasis with edema, and after repeated infection thickening of the skin.

The author prepared vaccine for preventive inoculation by exposing pure culture to 53° C. two different occasions for an hour and gave one million cocci at a dose. The inoculation was repeated three to six times at ten day intervals. Immediately after inoculation the phagocytic action of the leucocyte is reduced, but is increased two to three times after ten days. As a rule, the action is proportional to the number of inoculations. The author considers three inoculations sufficient. Immunity was still present in sixty-three per cent of the cases after one year and in twenty-six per cent after three years. The erysipelas attacks ceased, thickening of the skin did not occur and retrogression of the already thickened skin set in. An immune serum of treated goats cured all symptoms of the attack within two to six hours, using 0.5 cc. of an injection. ORANT.

Ewing. Endothelioma of Lymph Nodes. *J Med Research*, 1913, xxviii. By Surg., Gynec. & Obst.

Ewing states that for many years he has been encountering tumors of lymph nodes in subjects presenting no other demonstrable tumor and with whom the subsequent course indicated that no other tumor existed, and in which the structure strongly suggested endothelial origin. The observation of several tumors of this class within the past year which presented early states and transitional forms between those previously observed has led him to the conclusion that endothelioma of lymph nodes is a rather common neoplasm that it is usually classed with lymphosarcoma on the one hand and with secondary carcinomas on the other, that the process differs in many histological, anatomical and clinical features from secondary carcinoma, and that it is usually possible to recognize these features with considerable or complete certainty.

The author reports eleven cases in support of his contention. These comprise clinically great variety of diagnoses, and upon study of them he

bases the following conclusions. Extreme grades of endothelial hyperplasia are not infrequently associated with and dependent upon granulomatous infection of lymph nodes, and these cases demonstrate the capacity of endothelium to respond to inflammatory irritation with extensive proliferation. In some cases it is difficult or impossible to determine whether this overgrowth is simply inflammatory or independent of the irritant, autonomic, and neoplastic. The long continued effects of a granulomatous infection may lead to neoplastic growth of lymphatic endothelium, and in the course of granulomatous infection of lymph nodes, after repeated operations, the granulomatous element may be eliminated and the disease progress as a form of neoplasm. Granulomatous infection of lymph nodes may very easily give rise to extensive overgrowth of endothelium of distinctly anaplastic type, and with local aggressive properties.

Such malignant endotheliomas may arise without any evidences of an associated granuloma. It is possible to conceive that an original infectious focus may be overgrown and obscured by the neoplastic cells. A definite evidence of such an event has been secured but it has been shown that one mode of change may exhibit purely neoplastic overgrowth while others show chiefly granuloma. Certain endotheliomas of lymph nodes designated as diffuse, pleomorphic, perivascular or alveolar are probably derived from the endothelium of lymph sinuses and lymph cords. Certain primary tumors of lymph nodes, with or without associated granuloma, are probably derived from the reticulum cells of the follicles. These tumors resemble lymphosarcomas with large cells, and may be distinguished from tumors of small lymphocytes. Endothelioma of lymph nodes differs from other neoplasms in several particulars, and may be regarded as a disease and growth although essentially neoplastic.

GEORGE F. BAKER

POISONS

Strebel. The Micrococcus Tetragenus as Cause of Bacteremia in the Human (*Der Micrococcus tetragenus als Erreger von Bakteriämie beim Menschen*). *Beitr. Klin. Chir.* 10, 3, 1913, 713. By Zentralbl. f. d. ges. Chir. 1. Original.

After short review of literature Rich shows that this organism not only acts in symbiosis with other bacteria, but may also alone cause disease, even sepsis, the author describes a case of tetragenus sepsis with rare phenomena. A 26 year old male patient with an old empyema fistula was suddenly taken ill with general symptoms, and swelling of several joints. The joint involvement was transient, migrating quickly from one joint to another and also involving the thorax. Hemorrhagic extravasations occurred in the face and skin of the body. Fever up to 39° was present, with marked remissions. After a course of four weeks, gradual recovery set in, nephritis, however persisting.

Blood cultures made on three different occasions showed a pure culture of *micrococcus tetragenous*. Stroebl is of the same opinion as Hleims that the organism is a pathogenic sarcina. The primary focus probably was in the empyema sac. In, although it was impossible to cultivate a pure culture from the fistula.

FRONCE.

Thies Treatment of Acute Surgical Infections with Rhythmical Hyperemia (Behandlung akuter chirurgischer Infektionen mit rhythmischer Stauung). *Deutscher chir. Kong.* 93.
By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

On physiological grounds Thies recommends in acute inflammations, an interrupted passive hyperemia for 3 ml. to be followed by equal periods of rest, instead of the continuous hyperemia, recommended by Bier for the greater part of the day. This rhythmical hyperemia is made with an apparatus patterned after the Perthes continuous hyperemia apparatus. With this a desired rhythm can be attained. The method has the following advantages: ver Buer's rhythmical application may be applied for several days without long interruptions. With an intensive, long-continued hyperemia the edema is not strong enough to interfere with the hyperemia. The extremity always remains warm. Obviously the endothelial cells of the capillaries are spared, as they always come in contact with fresh blood, therefore they are more equal to the task of binding the toxins. There is no Stauungsieber, which is often observed after loosening the binder.

Rhythmical hyperemia may also be used in patients with sensory disturbances, and a small children it may be used for several days. The method was of good service in a series of cases of acute inflammations.

SURGICAL THERAPEUTICS

Verschöts The Treatment of Septic Processes by the Administration of Alkalies (Behandlung septischer Prozesse durch Darreichung von Alkalien). *Deutscher chir. Kong.* 93.
By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The administration of alkalies in septic processes to combat the body acids liberated, and on the basis of their physiologic action, was undertaken good many years ago at the surgical clinic of Gebelein-Tilman. They were given in large doses in all pus cases, 0-20 gm. to adults and 5 gm. to children. To prove the clinical observations and the theory promulgated, by Ehrlich, as far back as 890 (that the bactericidal power of the blood is dependent on its salts) the author acidified the blood of guinea pigs with 50 cc. of a one tenth hydrochloric acid solution and then injected a quantity of ricin. By this method it was shown that the acidified blood was not able to fix the same quantity of poison as the normal blood. If the acidity was neutralized with alkalies, the animals remained alive. The

favorable action is to be attributed (1) to their catalytic action (2) to their retention of water in the tissues (3) to their action upon the kidneys, causing an increased secretion (4) by causing profuse glandular secretion, thus increasing the appetite (5) to their raising of the blood pressure.

Von Brunn On the Value of Peristaltin in the After Treatment of Laparotomy Patients (Über den Wert des Peristaltins für die Nachbehandlung Bauchoperierter). *Zentralbl. f. Chir.* 93, 1143.
By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Peristaltin is made from the bark of rhamnus purshiana and produces rapid and painless resumption of peristalsis after abdominal operations and is especially recommended as a prophylactic following such operations. The dose is 15 gm. subcutaneously to be repeated if necessary in ten to twelve hours.

KINKE.

Magnus The Treatment of Wounds with Sugar (Wundbehandlung mit Zucker). *München. med. Wochenschr.* 93, 12, 406.
By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

According to the experiments of the author sugar as such or in concentrated solution has shown itself to be bactericidal and preventive of putrefaction in the treatment of infected wounds. The antiseptic power is due especially to the peculiarity of the sugar in abstracting water from the tissues. As a result of this bathing with serum, the wound cleans itself of micro-organisms and deposits of fibrin and is placed under more favorable conditions for healing. This is shown by healthy granulations and the rapid formation of epithelium. Tuberculous inflammations cannot be treated by this method.

GERWEIN.

III. Report on the Use of Pituitary Extract in Surgical Shock. *Berlin M. & S. J.* 93, 12, 171, 720.
By Surg. Gynec. & Obst.

After briefly describing the symptoms of shock the author states that he has used pituitrin in about eight hundred abdominal operations. He states that as the essential factor in producing shock is the collection of blood in the splanchnic vessels with a resulting drop in blood pressure, drug should be used to combat it which will raise the blood pressure. Pituitrin produces marked effect on the blood pressure in patients who have undergone operation. He gives chart of a typical case which shows that the blood pressure at the beginning of operation was 5 which dropped to 30 a short time after the abdomen was opened, where it remained almost throughout the operation. His procedure is as follows: An injection of pituitrin is given before the patient leaves the operating table, usually before the abdominal wound is closed or 5 minims is the usual dose. This is repeated every three hours for four doses if necessary. In the case quoted above 15 minims were injected before the abdomen was closed and the blood pressure increased to 85 and then to

go within a short time. When this point was reached another injection of miltuna was given and 45 minutes later the blood pressure registered 100. The pulse rate dropped in proportion to the increase in blood pressure. No evidence of shock was noticed although the operation was somewhat prolonged owing to the amount of work done.

In this series of cases no instance occurred in which there was a symptom of shock. In two or three cases, however, condition simulating heart exhaustion was noted. Whether or not this apparent exhaustion was due to over-stimulation is a question. Many other factors may have been responsible. These symptoms were only transient, the patient responding to stimulation after the administration of pituitrin was discontinued and in each instance the patient made a successful recovery. Another result as noted in most of the cases is that pituitrin has very marked effect on the muscular coat of the intestine causing an increase in peristalsis and facilitating the passage of gas. This result has also been noted by other investigators.

EDWARD L. COE, III.

SURGICAL ANATOMY

Hewett. Some Observations on the Anatomy of the Inguinal Region with Special Reference to the Absence of the Conjoined Tendon.

Surg. Gynec. & Obst. 9, 1, 25, 305.

By Surg. Gynec. & Obst.

In the prevailing textbooks on anatomy the cojoined tendon is described but not accorded much prominence. Here and there it is stated that the tendon may be absent, which creates the impression that such anomaly is rare and of no practical importance. The author claims that absence or maldevelopment of the conjoined tendon is more common than has been supposed and that the matter is of practical importance especially in its bearing on the technique of hernia operations.

The condition is undoubtedly congenital and the tendon may be either thin and poorly defined, or it may be absent altogether. It is more commonly the case. In this event the fibers of the internal oblique and transversalis pass directly inward toward the edge of the rectus without forming any tendinous union, and are inserted high up in its sheath. The muscles and fascia of this region are also often found attenuated and poorly developed. A triangle is formed with its apex at the terminal ring and its sides formed by the internal oblique and transversalis muscles and Poupart's ligament respectively. The base is formed by the edge of the rectus. The floor of this area is formed by the transversalis fascia only, which makes it very weak spot, and predisposes to the formation of direct hernia. The author has repeatedly demonstrated the condition clinically before verification by operation. A typical Bassini operation is impossible in such cases for the reason that there is no conjoined tendon. In cases of high insertion of the internal

oblique and transversalis, these muscles cannot be sutured to Poupart's ligament without creating too much tension. The operation which best meets the indications in the great majority of cases is the Andrew operation. The Bloodgood operation may be employed in extreme cases.

ELECTROLOGY

Sticker. The Employment of Radium in Surgery (Die Anwendung des Radiums in der Chirurgie).

Arch. f. physikal. Med. u. nat. Ther. 9, 1, 8, 82.

By Zentralbl. f. d. ges. Chir. u. L. Gernig.

The action of radium differs from that of the Roentgen rays. Weak preparations of radium applied only for a short time, cause acute inflammatory irritation of the tissues. In tumors this irritation affects the connective tissues first, but after some time the tumor cells are visibly injured. Stronger preparations applied over a prolonged period cause distinct degeneration of the tumor cells almost from the start. Operable neoplasms were kept in an operable condition in cases in which the operation had to be postponed. Many inoperable cases were converted into operable ones. Advanced inoperable tumors were temporarily improved by partially preventing their further growth. In cases of carcinoma of mucous surfaces radium carbonyme preparations were effective; also, the combination of radium-ray with unipolar electricity was efficacious. Superficial skin carcinomata are especially susceptible to radium therapy. Navi, papillomata, lupus erythematosus were painlessly removed, leaving small cicatrices. Multiple lymphomata disappeared rapidly when subjected to this treatment.

GRABER.

Béchère and Biérial. The Use of Radiography in Surgical Affections of the Stomach and Intestines (L'exploration radiographique dans les affections chirurgicales de l'estomac et de l'intestin).

J. Cong. d. l'Ass. Fran. d. Chir. 9, Oct.

By Journal de Chirurgie.

The use of radiography as a diagnostic aid in surgical affections of the stomach and intestines has made remarkable progress during the last few years. It is indispensable in order to obtain an outline of the shape of intra-abdominal segments of the digestive tube to make them more transparent or more opaque. Gaseous distention of the stomach makes this organ transparent; opaque substances are employed such as salts of bismuth. Large quantities of these salts must be taken (for meal 30 grams, for an enema 100 grams). The examination must be made in the upright posture. There are several other valuable methods — that of bismuth and iycopodium (Léven and Barret, of doubly gelatinized capsules of Kistler, of Schwarz fibrodermic capsules. For enemas, gummy agar is the vehicle for bismuth bari in sulphate, etc. Oil can also be used as vehicle.

Radioscopy and radiography may be used con-

jointly Stereoscopic radiography is of especial value for the large intestines. Radiography in series presents great advantages, and the polygrams recommended by Levy Dorn (successive sittings every five seconds) give valuable information. The shade of the internal outline of the digestive cavity furnishes information concerning the topography, morphology and motility of the different segments of the digestive tract.

Radiology of the stomach. The normal image of the stomach does not correspond to that given in text-books of anatomy and it is important that one should know the different forms it may assume as well as how to measure its height and determine the location of the pylorus, to appreciate the degree of gastric distention. Radiographical examination reveals topographical anomalies of the stomach, displacements of the stomach secondary to hypertrophy or other pathological conditions of neighboring organs.

Radiography shows morphological anomalies of the stomach, either of dimensions (lengthened, dilated, or retracted stomach) or of shape (lacunar bilocular stomach diverticular stomach). Radioscopic examination enables one to study disturbances of gastric tonicity of gastric contractility (peristaltic, atonic, hypertonic) or of fatigue antiperistaltic, circular spasms, disturbances in evacuation, pyloric insufficiency.

Radiographical examination gives valuable diagnostic information in simple ulcer of the stomach and in cancer of the stomach. Every patient in whom a cancer of the stomach is suspected should be submitted to examination by the X-rays. Pyloric stenosis is perfectly revealed by radiology.

Radiology of the intestines. Radiography furnishes valuable information in the following pathological duodenal states: displacement, ptosis, ulceration, spasm, and especially in stenosis. The principal signs of duodenal stenosis are: abnormal lasting distention on the side proximal to the stenosis and visible persisting duodenal peristalsis while the distention lasts. The duodenum has the shape of a sausage, the length of which is determined by the seat of the stenosis. The first radiologic observations upon the jejunum and ileum were those of Rieder, Herz, and Schwarz, etc. When the intestine is diseased, radiology is of service to diagnose ptosis, atony and stenosis, especially of the ileum. Stenosis reveals itself by a syndrome composed of three signs: abnormal stagnation of the contents of the ileum, abnormal widening of the gut lumen, and the typical aspect of hydrogaseous collections, making the intestinal loops look like the pipes of an organ. This aspect of organ pipes, filled at different levels with perpetually unstable gas and liquids, is characteristic. For the large intestines, enemata are recommended. After injections, the colon dilates and sacculization becomes evident giving an image resembling string of dried figs. The examination of the caecum, 6 hours after the bismuth meal, with the patient successively in the right and left

lateral decubitus, allows us to verify the existence of the following conditions: caecum mobile, abnormal dilatation of the caecum, ileo-caecal tuberculosis. The radiograph shows the location of the appendix and the possible presence in its interior of fecal concretions and of foreign bodies.

After gastro-enterostomy one should not neglect the use of X-rays. It gives precise information, especially concerning the function of the pylorus.

HARTMAN believes the X-ray plates may show the typical picture of a non-existing stenosis. The bismuth enema, in particular, may provoke spasms and may become fragmented by gases and give upon the photographic plate the image of strictures. Upon the screen one must follow the progression of the bismuth, make repeated examinations, and diagnose stenosis only when tenderness is present at the point of accumulation and immobilization of the bismuth.

We must avoid errors of interpretation with the X-rays. We must not make other methods of clinical investigation. The radiographic image of violent gastric peristalsis is easily interpreted in favor of pyloric stenosis. Tubes can give the same picture, less the gastric dilatation. X-rays must not increase the number of tubetic patients operated upon for so-called stomachic conditions. In certain cases clinical examination may help us to verify a diagnosis of suspected ulcer where the radiographic image taken with patient in the upright posture appears normal. If however we examine our patient in right lateral position or in a head low position, or if we increase the amount of bismuth porridge to about 600 grams, we will easily discover the signs of an ulcer. This is also true of cancer in the upper portion of the stomach. The stomach should be absolutely empty previous to the ingestion of bismuth porridge.

There are always some patients whose stomachs show in the radiograph a more or less complete biloculation, and still at the time of operation one does not detect the slightest notch of the greater curvature. These cases of spasmodic biloculation of the stomach are a frequent source of error.

Passing to the large intestine the radiographic image of which is certainly more difficult to interpret than that of the stomach, PEQUERVAL thinks we must not attach too much importance to bismuth enemata, especially as concerns the diagnosis of the shape and position of the intestine. The bismuth enema creates absolutely abnormal conditions, and the images which result therefrom are caricatures of the large intestines. It shows a sketch representing the large intestine of the same patient — one after the ingestion of the bismuth porridge, the other after the bismuth enema. In certain cases, radiographic examination alone will furnish a precise diagnosis more exact than all the other methods combined. There are other cases, and they form the large majority in which the diagnosis can be established only by considering all the clinical data.

J. DUBOIS

GYNECOLOGY

UTERUS

Kjerfveard. Investigations of the Endometrium; the Histological Changes Incident to Benign Affections of the Endometrium Corporis (Endometria Underkøleiser de Histologiske forandringer ved benigne Bøleiser af endometrium corporis). Kjöbenhavn 1913.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Chirurgie.

The author investigated thoroughly the endometrium of patients. The cyclic changes are essentially the same as described by Hirschmann and Adler. The author divides the pathological conditions into following groups: (1) Endometritis chronica et subchronica; (2) hypertrophica irregularis glandularis; (3) subultra mucosa mensis; (4) hyperplasia gland simplex; (5) polypus. He attaches considerable significance to the hypertrophica irregularis glandularis and attempts to differentiate it from the other forms clearly as is possible. In this group the glands, which normally belong to certain periods of the cycle, appear in various shapes side by side likewise gland projections are found. The etiological factor of this form is not inflammation. The cause must be looked for in other organs especially the ovaries. These patients present fairly constant clinical phenomena: haemorrhages are irregular, prolonged, recur usually immediately after curettage even after repeated curettment or after period of menorrhoea. The recognition of these changes indicates treatment other than curettment. This disease occurs most frequently between the ages of 35 and 45. On the strength of the gland projections no diagnosis can be made as these occur also associated with myomas and in older women.

The subultra mucosa menstrualis is characterized by the fact that the premenstrual changes commence abnormally late (5-10 days or more after the onset of menstruation) so that premenstrual forms of glands are found alongside of post-menstrual changes. These patients always have more or less prolonged irregular bleeding. Here too the etiological factor more probably lies in the ovaries rather than in the mucosa. After curettment, several patients had no recurrence whereas in others abnormal bleeding soon occurred again. The author puts those cases in which the mucosa is regular and undergoes the normal cyclic changes but in which the abnormality consists of quantitative differences in the group of hyperplasia gland simplex. The border-line between the normal pathological tissue is difficultly placed. The presence of invaginations is usually artificial. If the mucous membrane of freshly extirpated uterus is curetted over one-half of the organ and the other

half examined with its attached muscular layer then the invaginations are found only in the curetted portion of the mucosa. Actual papillae are found but rarely in benign curettings.

Polyps are recognized best macroscopically as the only round surface corresponds to the pedicle. Microscopically one can detect occasionally the antecedents of polyps. The endometritis chronica et subchronica is best recognized by the presence of plasma cells, some of which may occur without any other signs of inflammation. Some cases can be recognized by the presence of round cell infiltration without any plasma cells. The normal follicle like groups of cells lying under the deeper mucous membrane must not be confused with pathological round cell infiltration. In contradistinction, the pathological infiltrations are more diffuse with gland cells lying between the lymphocytes. The increase of spindle and connective tissue cells is a less important sign of inflammation on account of the variability of the individual quantity and because they may be increased from other causes as in atrophy. The thesis closes with large number of clinical histories accompanied with careful detailed microscopic description of the mucous membrane and the necessary proof of the contentions raised. Finally there are number of drawings and micro-photographs illustrating the pathological changes discussed. Ganncrort.

Sidakoff. The Blood Vessels of the Uterus during the Menopause (Die Blutgefäße des Uterus in der Menopause). J. Geburt. ginek. St. Petersburg, 1913, xxviii, 349.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Chirurgie.

Sidakoff examined the uteri of fifteen women between the ages of 4 and 8. He died at least one year after the onset of the menopause of diseases in no direct relation to the sexual organs. The most striking picture is the dilated lumen of blood vessels which increases with the age of the woman. This is due to the gradual disappearance of the muscular elements of the vessel. In the latter only single fibers remain the others have gradually been replaced by elastic and connective tissue. The circular and longitudinal fibers encroach upon the lumen like faded elevations, and serve to keep it closed. The endothelium and intima are fairly well preserved. Calcification of the vessel wall is relatively rare. The author compares with others that the sclerosis of the uterine vessels is not dependent on the general arterial sclerosis, but it is dependent upon pregnancy and its results. The vessels are frequently so placed that one appears to be pushed into the lumen of the other. Goodall explains this phenomenon.

enon as due t the formation of new blood vessels in the old nes after a pregnancy I young uterms the old vessel wall may disappear entirely and the new vessel alone remains whereas in older women the degeneration of the old vessel wall occurs only partially

Cressano

Rawls Cancer of the Uterus. *Med Rev.* 9 3.
Lundell, 893 By Berg, Gynec. & Obst.

After some general remarks cancer th a thor discusses the treatment of terin cancer in particular The study of cancer has become an exact experimental science and a specific will be found even before its etiology is understood. H reviews the statistics from many countries showing a general increase in cancer mortality About 4 per cent of gynecological cases have carcinoma H claims that childbearing as whole does not seem to have the direct etiological bearing which is ascribed t it H quotes the census of 900 to substantiate his claims, which showed that the deaths from all causes in women between the ges of 45 and 54 show ratio between the married and single of 7 t and from cancer f 7 5 to He makes the following statements concerning the treatment There is no specific and th only means f combating this wide spread disease is early diagnosis and immediate operation Cancer at some time in its development is local conditio and radical removal will result in a cure But its early symptoms are atypical and many physical chemical and serological tests have been proposed for an early and correct diagnosis as yet unreliable The subjective and bjective symptoms must still be depended upo fo an early diagnosis He then discusses the three cardinal symptoms f cancer (hemorrhage, pain, foul leucorrea) and concludes that after all, the nly real means of making an early diagnosis is by microscopic examination of masses removed by curettage or excision.

The best operative procedure for cancer is still in dispute The extended abdominal operatio as done by Wertheim or the extended vaginal operation as performed by Schauta re now the operations which in the greatest number f cases give the best absolute accomplishments H cites European and American statistics of th operability and cure In conclusion he refers t Winter' effrts to get cancer cases at an early stage by enlightening physicians, midwives and th general public through a publicity campaign H advocates the earnest adoption of this plan for the United States.

HENRY SCHWITZ

Peterson The Present Status of the Radical Abdominal Operation for Cancer of the Uter
a. *Swz Gynec. & Obst.* 9 3, xvi, 56

By Song, Gynec. & Obst.

The author believes that the unpopularity among American surgeons of the radical abdominal operation for cancer of the uterus is due to the high primary mortality If all reported and unreported

cases could be collected, a fair estimate of the primary mortality would be between twenty and fifty per cent The author recognizes that two conditions must be brought about before the operation under discussed will be generally adopted. First the profession and laity must be so educated regarding uterine cancer that the disease will be recognized earlier and patients come to the surgeon when local and general conditions combine t bring about a low primary mortality Second f r this particular operation, true specialization must result, so that the occasional operator will be eliminated.

The backwardness of the medical profession in inaugurating campaign against carcinoma is explained by the firmly fixed idea that cancer is hopeless as t cure The a tho makes a strong plea for an organized campaign against cancer similar to that being carried o against tuberculosis He suggests that the profession must be convinced that cancer is local disease capable of cure if taken in time and radically removed Early diagnosis and radical removal offer the solution of th problem In Germany where education in regard to cancer has been carried on, one out of every four women with cancer of the cervix, seeking relief ca be subjected t the radical abdominal operation, and are free from th disease at the expiration f five years.

Theilhaber Non-Surgical Treatment of Carcinoma (Zur Frage von der Operationslosen Behandlung des Carcinoms) *Berl. Klin. Wochenschr.* 9 3, 1, 243.
By Zentgraf f d ges Gynaek u Geburtsh. a d Grenzgeb.

The thor believes that the no -surgical treatment of carcinoma is not benefited by any efforts which tend t destroy all carcinomatous cells, but by the limitation of the curative efforts of nature Nature endeavors to take corrective measures against all diseases Spontaneous healing of carcinoma occurs in ch more frequently than is generally accepted This is not obtained by cell atrophy or cell death as in myomata but the epithelium not infrequently transgresses beyond its limits into the connective tissue especially if its power to proliferate beneath the epithelial layers is weakened Ordinarily this invasion of epithelium affects the connective tissue like the irritation of a foreign body and in defense there occurs a reaction to the localized hyperemia expressed by hypertenocytosis and an increase i the proliferating power of the connective tissue cells If this proliferating power is extensively diminished and if the vessels are contracted and not capable of dilatation then these defensive measures remain absent, the epithelium penetrates without limit and a carcinoma forms On careful examination small nests of carcinomatous cells are found in the enlarged regional lymph nodes in the neighborhood of the tumor which are evidently not in state of proliferation (slumbering carcinoma cells) The author refers t the fact that the lymph nodes frequently heal spontaneously especially after extirpation of the primary

menopause may be expected as after the natural one. In cases of metropathic hemorrhage the results are generally more prompt and striking. In older individuals it is advisable to continue the treatment after amenorrhea has occurred in order to make the effect permanent. In young individuals it may be sufficient to produce temporary oligomenorrhea, expecting that later normal menstruation may be re-established.

Pfahler emphasizes the following points in the technique. It is necessary that the operator be an experienced roentgenologist; the exciting instrument give a uniform current of high voltage and the tube be so that will keep a constant high vacuum of 7 to 8 Becquerel; the distance from the target of the tube to the skin of the patient is 5 inches. The rays are to be applied over the ovaries and tumor if one be present. They should be confined to the area treated as much as possible and much care exercised that no burn is produced. The frequency of application will depend upon the patient and skill of the operator. The most favorable time for treatment is just after a period or at a time corresponding to it. A little less than full dose (9 times) should be given and repeated at a corresponding time the succeeding month. From one to six such series is usually necessary. By the use of filters and a radiometer, burns of the skin are more successfully avoided. In concluding he says that it is the method of choice in the control of hemorrhage in those at or near the menopause when cancer can be eliminated as a possibility, but is not the method of choice in young people unless there be contra-indications to operation. V. BREUER, HANNOVER

Fuchs: X-ray Therapy or Vaporization in the Treatment of Hemorrhagic Metropathia (Röntgentherapie oder Vaporisation bei Hämorrhagischen Metropathien). *Monatsschrift f. Geburtsh.* 9, p. xxviii, 1906.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The author reports his experiences with the vaporization method obtained in 7 cases of hemorrhagic metropathies during the last nine years. He employs exclusively the vaporization of the fundus cavity the principal source of the bleeding, after thorough coagulation of the mucosa and coagulation of all bleeding. After the introduction of an insulator tube so the special protection of the uterus, steam is introduced at a temperature of 5° f. for from 30 to, at most, 60 seconds. The method is especially adapted to prediabetic bleeding, excepting severe cases of adenomyometritis, to all hypoplastic and atrophic uteri to all myomata. It is directly contra-indicated in all catarrhal inflammations of the endometrium, as well as in all inflammatory conditions in the neighborhood of the uterus. In 9 per cent permanent cures were obtained, in 47.6 per cent permanent amenorrhea resulted, in 44.4 per cent an oligomenorrhea, approaching the normal menstruation only in 8 per cent of cases was there complete failure. Analogous

to the clinical results were the anatomical findings obtained at a later exploration of the uterine cavity with sounds. On the strength of his good results the author is now willing to decide in favor of X-ray treatment, as the latter is much more time-consuming and usually results in an injury to the function of the ovary. He highly advocates his more conservative method as the method of choice in all hemorrhagic metropathies in older as well as younger women. SCHNEIDER.

Küstner: A Perforation of the Fundus Uteri (Ein am Fundus perforierter Uterus mit Adhärenz). *Deutsche Gesellschaft f. Gynäk. Halle, 9. u. 10. May*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The patient was brought into the clinic with marked uterine hemorrhage, following an attempt at abortion. Residual portions of placenta were manually removed, followed by an alcohol douche, and when the curettage was being introduced it slipped in great distance without meeting with resistance. Owing to the serious condition of the patient an immediate laparotomy was performed, revealing a widespread peritonitis, several copious clots of bloody brown exudate escaping. The uterus was the size of a goose-egg and showed perforation at the fundus. The edges of the perforation had a old appearance, and it was certain that this had been done before the patient entered the clinic. In spite of complete hysterectomy and drainage the patient died within twelve hours.

Sigwart: Removal of Danger of Peritonitis by the Operative Treatment of Ruptured Uterus (Die Ausschaltung der Peritoniegefahr bei der operativen Therapie der Uterusruptur). *Deutsche Gesellschaft f. Gynäk. Halle, 9. u. 10. May*

By Berg. Gynec. u. Obst.

In incomplete ruptures with little damage to the perimetrium the total extirpation per vagina is indicated. Where extensive injury or haemorrhage is found, laparotomy is indicated. Exact double suture of peritoneal defects is recommended with no drainage. Sigwart reports twelve cases, a complete six incomplete ruptures. Three vaginal, eight abdominal total extirpations and one simple closure of the defect are performed. Three moribund cases died at operation and the other nine cases recovered without signs of peritonitis.

J. R. MILLER.

ADnexAL AND PERIUTERINE CONDITIONS

Frankl: Ovarian Functions in Basedow Disease (Über die Ovarialfunktion bei Morbus Basedowi). *Deutsche Gesellschaft f. Gynäk. Halle, 9. u. 10. May*

By Berg. Gynec. u. Obst.

Disturbances of ovarian function predispose to Basedow's especially diminished ovarian function as in puberty, pregnancy and lactation. The menopause must also be included. Of forty cases, eight began after 40 years, 21 between 30 and

52 years, and five in the menopause. In the severe cases amenorrhea was the rule though the type of menses gave no sure prognosis. Basedow's disease is not caused by damage to the ovaries. On the theory that ovary and thyroid work oppositely on the sympathetic, Frankl's ovarian tablets in three cases with improvement of tachycardia and sweating.

J. R. MILLER

Whitehouse The Autoplastic Ovarian Graft and Its Clinical Value. *Clin J* 9 3 July, 07
By Surg. Gynec. & Obst.

In this short discussion of ovarian transplantation, Whitehouse reports one case in which the patient was menstruating regularly one year after operation. He believes that much greater success will attend the use of small portions of tissue, as is done in the case of the thyroid and other glandular structures. The vitality of the tissue is much more likely to be maintained if seedling grafts be made. As regards the site of implantation he prefers the rectus muscle and subperitoneal tissue. In conclusion he regards these points as essential to the success of the operation.

1. Absolute asepticity and the voidance of strong antiseptics which could destroy the vitality of the tissues. Pus in cases of chronic pyosalpinx and salpingo-oophoritis is usually sterile.

2. The employment of minit or seedling grafts.

3. The presence of good vascular supply in the tissue used as the bed for the graft. Muscle is entirely satisfactory for the purpose.

4. The ovarian tissue should be left in contact with the body fluids within the peritoneal cavity until it is required for the purposes of the grafts. In the case here recorded the ovary was placed in Douglas' pouch until the time arrived for closure of the abdominal wound.

CAREY COLBERTSON

Regaud and Lacaze The Conditions of Sterilization of the Ovary by X Ray (Ser les conditions de la stérilisation des ovaires par les rayons X). *Compt rend Académ. Sci. de Biologie* 9 3 July 783.

By Journal de Chirurgie

Absolute sterilization of the ovary may it seems, be obtained by direct irradiation. It is only necessary that a sufficiently strong dosage be used. But there has been some discussion as to whether the same results could be accomplished by irradiation through the thickness of the abdominal wall. Several early experimenters have claimed that this is the case, but the authors doubt this because of the results of their experiments with rabbits and dogs.

In the rabbit the ovaries occupy a fixed and superficial position. If one uses very hard rays and a dose of 5 units of absolute sterilization is possible. (An aluminum plate of 4 millimeters thickness must be used as filter to void radio-dermatitis.) Of seven rabbits thus treated by the three four remained sterile after fecundation although there was a late re-appearance of the symptoms (rut). The

ovaries of these rabbits contained only a few remaining normal folliculi.

In the bitch, the ovaries are more mobile and deeply situated. Here sterilization seems to be impossible since it is necessary to irradiate too large a surface and to use dosage which is so strong as to cause the death of the animal by lesions of the intestines.

For the same reason sterilization in women is impossible by irradiation through the abdominal wall. The authors consider that the few cases which have been published are not interpreted correctly.

PETER CRIST

Bland Sutton A Note on Typhoid Infection of Ovarian Cysts. *Unvernal Med Rev* 9 3 July 85.

By Surg. Gynec. & Obst.

The importance of differentiating the B typhosis from the B coli and the B paratyphosis is emphasized by the author as well as the necessity of culturing on special media and of employing the agglutination test. All of these methods were taken advantage of in determining the nature of the infection in cases here reported.

In the first case the patient had been treated one year previously for typhoid fever. The cyst was congested plum-colored and veiled in sheet of thin adherent omentum but showed no axial rotation on its pedicle. It contained fifty ounces of yellow purulent fluid free from odor. A pure culture of the B typhosis was definitely proven.

In the second case the patient had had typhoid fever sixteen years previously and an ovarian cyst as opened and drained soon after sinus persisting for nine months. The author's operation revealed an infected ovarian dermoid, the pus containing both B typhosis and streptococci. The patient's blood gave a strong agglutination reaction though both urine and feces were negative.

In conclusion Bland Sutton shows that the majority of reported cysts infected by the B typhosis have been of the dermoid type. The long duration of the infection as demonstrated by his second case is in all respects comparable to similar well recognized infections of the gall-bladder.

CAREY COLBERTSON.

Wright Ovarian Cyst with Twisted Pedicle *Unvernal Med* 9 3 July 80.

By Surg. Gynec. & Obst.

Wright's case had never been pregnant, and her present trouble began one and one-half years ago with pain in the right iliac region, slight nausea, but no vomiting nor temperature. Her second attack occurred several months ago lasting five weeks. Appendicitis was the diagnosis in both attacks. The third attack was similar in all respects, except that it was accompanied by temperature of 100.4 and a pulse of 120. Operation for chronic appendicitis was advised. Laparotomy revealed a dermoid cyst and unilocular cyst of the right ovary with twisted pedicle. The dermoid was the size of an

tumor. This in all probability indicates a process of retro-metaplasia, a curative process for the metastatic invasion. In advanced cases the tendency to spontaneous healing by the primary tumor is slight because it only originated in places where the local described condition of lowered resistance exists in the connective tissue. In contradistinction to this the metastases usually grow in tissues with normal blood supply thus it is showing an increased tendency to spontaneous cure.

Nature's effort to cure a carcinoma metastasis in hyperemia hyperleucocytosis, and increase in the proliferative power of connective tissue. The opposite condition exists in myomata which grow as long as the uterus is rich in blood but cease at menarche and menopause and a spontaneous cure by atrophy of the muscle fibers occurs after the menopause when the uterus becomes increasingly anemic. The author proposes to imitate nature's efforts in the treatment of cancer carcinoma. Hegar proposed irradiation in myomata. In malignant tumors such attempts have also been made though unknowingly by the injection of Lamberich cryoplas serum by bacterial toxins etc. The action of these measures is well the resulting cure of carcinoma after passing through erysipelas smallpox, and other febrile diseases depend on the production of local hyperemia and local and general hyperleucocytosis. The action of other bloodless methods of treatment can be similarly explained as for instance antineoplastic of Schmidt cholel of Wiener the action of X-rays of thermopercutaneous and combination of high frequency currents diathermy and X-rays according to Müller.

Meldner: Marked Influence of Mesothorium on a Cervical Cancer (Weltschende Beschleunigung eines Portiarcinoms durch Mesothorbestrahlung). Thorpe & Geyre, 9 J. gyn. 40.
By Zentralbl. f. d. gyn. Gynäk. u. Gebärh. d. Grenzgeb.

The author refers to his former paper (in the 16th year of the *Zeitschr. f. Geburtsh. u. Gynäk.*) which he reports concerning sound obtaining mesothorium as a liquid for an inoperable terine carcinoma. At one end of the hard rubber sound is a capsule which contains the radio-curve substance. The capsule is covered with rubber tissue and three thicknesses of gauze and is inserted through the vagina to the carcinomatous focus, where it is left for one or two hours. This procedure is repeated on ten to fourteen successive days. This equals one raying series. After an intermission of one to two weeks the second series is begun. Meldner reports a case which had been treated in this manner.

The patient, 74 years old, for a long time had severe genital hemorrhages. A examination was made November 9 which revealed inoperable carcinoma of the cervix presented a large ulcerated crater and tumor the size of an adult fist was found in the left parametrium. The diagnosis of cancer was made clinically but not histologically.

Mesothorium treatment was applied for 10 days during November and for 7 days in December. An examination made at the latter part of December did not reveal any improvement with mentioning. However the patient improved from day to day so that she felt perfectly well toward the end of January 9. The examination made at this time showed an apparent improvement. The tumor in the left parametrium was only the size of a bean, dry and smooth scars. The raised borders were left in place of the former ulcerations of the cervix.

The patient declared the former inoperable cancer to be an operable one. Diagnostic excisions from the cervix showed sea tissue rich in cell and blood vessels which a few places resembled tracks of dead cancer cells. The patient has since remained perfectly free from any disturbance.

Werder: The Ca-tery in the Radical Treatment of Cancer of the Cervix. Surg. Gynec. & Obst., 9 J. gyn. 379.
By Surg. Gynec. & Obst.

The galvano-ca-tery is preferred to the Paquelin ca-tery because the former has been more effective in producing thoroughly burned black surface. A properly constructed dome-shaped galvano-ca-tery is most effective. In the palliative operation repeated applications should be made until the place thoroughly charred. In the radical operation the various steps are described. Briefly they are: (1) Thorough curettement of the diseased parts and cauterization until all oozing is controlled. (2) Dissection entirely around the cervix as far as possible from the affected area by means of the cautery knife and heat. (3) Dissection carried up between bladder and uterus to peritoneum. Bladder protected from heated knife by retractor. (4) High amputation of the cervix performed with cautery knife and surface thoroughly charred by means of dome-shaped galvano-cautery opening into Douglas pouch. (5) Patient then prepared for laparotomy and free incision made between labia and pubes. Abdominal part of operation same as ordinary panhysterectomy except that after ligation of the uterine and pelvic and round ligaments with catgut, the parametria are burned through by means of Dooley electrothermic clamps after protecting the surrounding parts with moist gauze and metal shields for clamps.

The operation is bloodless one if the technique is perfect. Should there be slight bleeding, the burning may be repeated or a catgut ligature applied. Preliminary dissection of the ureters is a distinct advantage if the patient is in good condition, though it is not necessary as the ureters and bladder may be protected by putting the parametria on the stretch and pushing the bladder out of the way before applying the electrothermic clamps. Removal of the regional lymphatics is not considered necessary or advisable on account of possible protective function they may have and the danger of implanting the cancer cells upon the surrounding healthy tissues.

RESULTS

Total number of cases operated by radical method	78
Operability	36%
Primary mortality — 4 cases	5 1%
Cases operated upon over 5 years ago	30
By vaginal method	
By combined vaginal and abdominal method	8
Surviving five year limit — 8 cases	46%
Deaths after five years from recurrence — 4 cases	
after 6½ years from carcinoma of liver	
after 6 years, recurrence in retroperitoneal glands and spinal cord	
after 5 years, recurrence in lumbar glands	
after 5 years, etc. of recurrence not known	
Death from intercurrent disease after 6 years	
Living and well at present time — 3 cases	33 3/5%

Hirsch. The Etiology and Treatment of Uterine Hemorrhages (Zur Lehre von der Ätiologie und Therapie der Uterinblutungen). *Monatsschrift f. Geburtsh. u. Gynäk.* 9 3, XXXIV, 470.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynaecol.

Hirsch first discusses the different attempts to explain essential uterine hemorrhages. He denies the etiological influence of sclerotic thickenings of the uterine blood vessels, endometritis, localized hemophilia, or an abnormal state of the glands of internal secretion. He also disputes the ovarian origin based on an examination of his cases of ovarian tumors and also excludes functional disturbances of ovarian activity. It is of the same opinion as Theilhaber that uterine insufficiency exists, i. e., an abnormal relation between the hyperemia, the cause of the hemorrhage and the contractibility of the uterus which stops the bleeding. On this account typical anatomical changes within the uterus such as connective tissue hyperplasia are not always necessary or demonstrable. This theory explains the hemorrhages occurring in different uterine diseases, as metritis, atony or subinvolution. Excepting all the remedial measures correcting ovarian conditions all therapeutic agents used so far attempt to arrest hemorrhage by exciting or increasing uterine contractions. Hirsch used injections of ergotin into the uterine muscles through the cervical walls in 200 cases. The technique is similar to the one used for local anesthesia of the uterus 3/4 1/2 or grm. doses are injected daily for 3 to 4 days. The indications and contra indications are given. The results are excellent, especially in premenstrual hemorrhages.

BAUER.

Fries. Treatment of Amenorrhoea (Behandlung der Amenorrhoe). *Deutsche med. Wochenschrift* 9 3, XXXI, 675.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynaecol.

Fries reports two cases of amenorrhoea in which intracervical injections of pituitariol had promoted a menstrual bleeding after the usual methods of treatment had been tried without any result. Five injections of 1 cm. of pituitariol were used in two cases. Whether the success is lasting only further observations will show.

ROTHMANN.

Foges. X-Ray Therapy in Uterine Hemorrhages (Über Röntgentherapie bei Uterinblutungen). *Wochenschrift f. d. med. Wochenschrift* 9 3, LXII, 905.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynaecol.

Foges points to the superiority of X-ray treatment over operative treatment of uterine myomata, in so far as mortality and post-operative complications are concerned. The principal objection to conservative treatment is the possibility of overlooking a sarcomatous degeneration of myomata. In practice, however this objection is negligible. Severe injuries of skin and peritoneum are avoidable with an exact technique. The most important indication for X-ray treatment in gynecology is the ability to produce a decrease or complete cessation of hemorrhages.

Three cases are reported. In the first case diabetes, in the second valvular heart disease, and in the third refusal of the patient to submit to operation were the indications for the X-ray treatment. The author treated altogether twelve cases of myomata and four metropathies. Amenorrhoea was produced eleven times, oligomenorrhoea three times. As atrophy of the ovaries under X-ray treatment occurs much more quickly in older patients, those approaching the menopause are especially adapted to the treatment. Decrease in the size of tumors was observed only three times. The technique employed was that of Albers-Schönberg.

Softened and submucous tumors, also those that are growing rapidly or on account of their size and location, create functional disturbances in other organs are not adapted to the treatment. Each case, however must be followed closely and, should suspicion of sarcomatous degeneration arise, be immediately operated. The gynecologist and not the radiologist should set the indications. Rence.

Mahler. The Treatment of Uterine Hemorrhage by Means of the Röntgen Rays. *Am. J. Obst. & N.Y.* 9 3, LXVI, 860. By Surg., Gynec. & Obst.

This article is based upon a review of the literature and a report of twenty-three cases treated by the author during a period of ten years. The first effect noticed in the treatment of a fibroid is the decrease or cessation of bleeding. The closer to the menopause the more rapid is this effect. Generally there is a decrease or cessation of the flow within a month or two after the first two series of the rays, or after one or two full doses (10 to 200) have been given. For the production of complete and permanent amenorrhoea, from one to six applications (5 to 60 times) are needed, requiring from three to six months usually. Occasionally after the first treatment the next period is more profuse than normal, in view of which very anemic patients should be put to bed. The reduction of the tumor is slow and secondary to the effect on the bleeding. He states that of sixteen patients who ceased treatment it is impossible to find the tumor in twelve.

The same nervous phenomena after the induced

menopause may be expected after the natural one. In cases of metropathic hemorrhage the results are generally more prompt and striking. In older individuals it is advisable to continue the treatment after amenorrhea has occurred in order to make the effect permanent. In young individuals it may be sufficient to produce a temporary oligomenorrhea, expecting that later normal menstruation may be re-established.

Fischer emphasizes the following points in the technique. It is necessary that the operator be an experienced roentgenologist; the exciting instrument give uniform current of high voltage and that he be one that will keep constant high vacuum of 7 to 8 B. moist the distance from the target of the tube to the skin of the patient is 2 inches. The rays are to be applied over the ovaries and tumor if one be present. They should be confined to the area treated as much as possible and much care exercised that no burn is produced. The frequency of application will depend upon the patient and skill of the operator. The most favorable time for treatment is just after period and time corresponding to it. A little less than full dose (9 times) should be given and repeated at corresponding time the succeeding month. From one to six series is usually necessary. By the use of filters and radiometer, burns of the skin are more successfully avoided. In concluding he says that it is the method of choice in the control of hemorrhage in those at or near the menopause when cancer can be eliminated as a possibility, but is not the method of choice in young people unless there be contra-indications to operation. (See II, 125.)

Die X-ray Therapy or Vaporization in the Treatment of Hemorrhagic Metropathia (Röntgentherapie oder Vaporisation bei Hämorrhagischer Metropathia) *Monatschrift für Geburtshilfe Gynäk.* 9, 3, 1914, 498

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author reports his experiences with the vaporization method obtained in 7 cases of hemorrhagic metropathia during the last nine years. He employs exclusively the vaporization of the fundus cavity the principal source of the bleeding, after thorough curettage of the mucosa and cessation of all bleeding. After the introduction of an insulator to be for the special protection of the lithiasis, steam is introduced at temperature of 5 to 20° for from 30 to at most 60 seconds. The method is especially adapted to premenstrual bleeding excepting severe cases of adenomyo-metritis, to all hypoplastic and atrophic uteri and myomata. It is directly contra-indicated in all catarrhal inflammations of the endometrium as well as in all inflammatory conditions in the neighborhood of the uterus. In 9 per cent permanent cures were obtained; 47.6 per cent permanent amenorrhea resulted; 44.4 per cent oligomenorrhea approaching the normal menstruation only in 8 per cent of cases as there complete failure. Analogous

to the clinical result were the anatomical findings obtained at a later exploration of the uterine cavity with sounds. On the strength of his good results the author is unwilling to decide in favor of X-ray treatment, as the latter is much more time-consuming and usually results in an injury to the function of the ovary. He highly advocates his more conservative method as the method of choice in all hemorrhagic metropathia in older as well as younger women. SCHNEIDER

Kästner. A Perforation of the Fundus Uteri (Ein am Fundus perforierter Uterus mit Adhärenz). *Deutsche Gesellschaft für Gynäk. Heile.* 9, 3, 1914. By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

The patient was brought to the clinic with marked uterine hemorrhage following an attempt at abortion. Remnant portions of placenta were manually removed, followed by an alcohol douche, and when the curette was being introduced it slipped great distance without meeting its resistance. On account of the nervous condition of the patient an immediate laparotomy was performed, revealing a widespread peritonitis several cupfuls of a cloudy brown exudate escaping. The uterus as the size of a goose-egg and showed perforation at the fundus. The edges of the perforation had an old appearance, and it was certain that this had been done before the patient entered the clinic. In spite of complete hysterectomy and drainage the patient died within five hours.

Sigwart. Removal of Danger of Peritonitis by the Operative Treatment of Ruptured Uterus (Die Ausschaltung der Peritoneinfahr bei der operativen Therapie der Uterusruptur) *Deutsche Gesellschaft für Gynäk. Heile.* 10, 3, 1915.

By Surg. Gynec. & Obst.

In a complete rupture with little damage to the perimetrium the total extirpation per vagina is indicated. Where extensive injury or hysterocele is found, laparotomy is indicated. Exact double suture of peritoneal defect is recommended with no drainage. Sigwart reports five cases of complete six complete ruptures. Three simple, eight bilateral total ruptures and one simple closure of the defect are performed. Three moribund cases died at operation and the other nine recovered without signs of peritonitis.

J. R. MILLER

ADNEXIAL AND PERIUTERINE CONDITIONS

Frankl. Ovarian Functions in Basedow's Disease (Über die Ovarialfunktion bei Morbus Basedow) *Deutsche Gesellschaft für Gynäk. Heile.* 9, 3, 1915. By Surg. Gynec. & Obst.

Disturbances of ovarian function predispose to Basedow, especially diminished ovarian function as in puberty, pregnancy and lactation. The menopause must also be included. Of forty cases, eight began after 40 years, 11 between 30 and

53 years, and five in the menopause. In the severe cases amenorrhea was the rule though the type of menses gave no sure prognosis. Bland-Sutton's disease is not caused by damage to the ovaries. On the theory that ovary and thyroid work oppositely on the sympathetic, Franklign ovary tablets in three cases with improvement of the condition and sweating.

J. R. Miller

Whitehouse: The Autoplastic Ovarian Graft and Its Clinical Value. *Clin. J. Obst. & Gyn.* 9, 3, 314, 07.
B. Surg. Gynec. & Obst.

In this short discussion of ovarian transplantation, Whitehouse reports one case in which the patient was menstruating regularly one year after operation. He believes that much greater success will attend the use of small portions of tissue, as is done in the case of the thyroid and other glandular structures. The vitality of the tissue is much more likely to be maintained if seedling grafts are made. As regards the site of implantation, he prefers the rectus muscle and peritoneal tissue. His conclusion is regarding these points as essential to the success of the operation.

1. Absolute asepticity and the use of strong antiseptics which would destroy the vitality of the tissues. Thus in cases of chronic pyosalpinx and salpingo-oophoritis is usually sterile.

2. The employment of minute seedling grafts.

3. The presence of good vascular supply in the tissue used as the bed for the graft. Muscle is entirely satisfactory for the purpose.

4. The ovarian tissue should be left in contact with the body fluids within the peritoneal cavity until it is required for the purposes of the grafts. In the case here recorded the ovary was placed in Douglas' pouch until the time arrived for closure of the abdominal wound.

CAREY COLEBROOK

Regaud and Lacaze: The Conditions of Sterilization of the Ovary by X-Ray (Sur les conditions de la stérilisation des ovaires par les rayons X). *Compt. rend. Acad. Sci. et Biol.* 9, 3, 163, 183.
By Journal de Chirurgie

Absolute sterilization of the ovary may, it seems, be obtained by direct irradiation. It is only necessary that sufficiently strong dosage be used. But there has been some discussion as to whether the same results could be accomplished by irradiation through the thickness of the abdominal wall. Several early experimenters have claimed that this was the case, but the authors doubt this because of the results of their experiments with rabbits and dogs.

In the rabbit the ovaries occupy a fixed and superficial position. If one uses very hard rays and a dose of 1000 units of absolute sterilization is possible. (An aluminum plate of 4 millimeters thickness must be used as filter to avoid radio-dermatitis.) Of seven rabbits thus treated by the authors four remained sterile after fecundation although there was a late re-appearance of the symptoms of rut. The

ovaries of these rabbits contained only a few remaining normal follicles.

In the bitch, the ovaries are more mobile and deeply situated. Here sterilization seems to be impossible since it is necessary to irradiate too large a surface and to use a dosage which is so strong as to cause the death of the animal by lesions of the intestines.

For the same reason sterilization in women is impossible by irradiation through the abdominal wall. The authors consider that the few cases which have been published are not interpreted correctly.

PETER CARR

Bland-Sutton: A Note on Typhoid Infection of Ovarian Cysts. *Univ. Med. Rec.*, 9, 3, 315.
By Surg. Gynec. & Obst.

The importance of differentiating the B. typhoid from the B. coli and the B. paratyphosus is emphasized by the author as well as the necessity of culturing on special media and of employing the agglutination test. All of these methods were taken advantage of in determining the nature of the infection in two cases here reported.

In the first case the patient had been treated one year previously for typhoid fever. The cyst was congested plum-colored and veiled in a sheet of thin adherent omentum but showed no axial rotation on its pedicle. It contained fifty ounces of yellow purulent fluid free from odor. A pure culture of the B. typhosus was definitely proven.

In the second case the patient had had typhoid fever sixteen years previously and an ovarian cyst as opened and drained soon after a sinus persisting for nine months. The author's operation revealed an infected ovarian dermoid, the pus containing both B. typhosus and streptococci. The patient's blood gave a strong agglutination reaction, though both urine and feces were negative.

In conclusion Bland-Sutton shows that the majority of reported cysts infected by the B. typhosus have been of the dermoid type. The long duration of the infection as demonstrated by his second case is in all respects comparable to similar well-recognized infections of the gall-bladder.

CAREY COLEBROOK

Wright: Ovarian Cyst with Twisted Pedicle. *Univ. Med. Rec.* 9, 3, 40.

By Surg. Gynec. & Obst.

Wright's case had never been pregnant and her present trouble began one and one-half years ago with pain in the right iliac region, slight nausea, but no vomiting nor temperature. Her second attack occurred several months ago lasting five weeks. Appendicitis was the diagnosis in both attacks. The third attack was similar in all respects, except that it was accompanied by temperature of 100.4 and pulse of 20. Operation for chronic appendicitis was advised. Laparotomy revealed a dermoid cyst and unilocular cyst of the right ovary with a twisted pedicle. The dermoid was the size of a

orange, and along with it was unilocular cyst twice its size, though no diagnosis of tumor had been made before the operation. C. D. HODGINS

Cowle. A Case of Malignant Multilocular Cyst of the Ovary in a Young Girl. *Physician & Surg.* 913, xxxv 200. By Surg. Gynec. & Obst.

The author gives a detailed history of a seven year old girl who entered the hospital for painless enlargement of the abdomen. The patient menstruated month before entering and again just before leaving the hospital. Cummings operated upon her and removed a right ovarian cyst which weighed about three pounds. This proved to be multilocular cyst of the ovary undergoing carcinomatous changes, or malignant teratoma. C. H. D. VAN

Gurd. Primary Malignant Neoplasm of the Fallopian Tube. *Canad. M. Ass. J.* 9 3, 13, 130. By Surg. Gynec. & Obst.

True primary neoplastic tumor formation in the Fallopian tubes is a comparative rarity. Cancers constitute the most malignant blastomata of this organ. The author reports minutely a case of primary papilliform, medullary cancer of the tube, describing the symptoms, technique of operation and the microscopic examination of portions of the removed organs. HENRY SCHMIDT

EXTERNAL GENITALIA

Gauwenberghs. Thrombus and Vero-Vaginal Hematoma (Thrombus et hémorrhagie vulvo-vaginale). *Bull. Soc. belge de gynéc. et d'obst.* 9 3, xxx, 187.

By Zentrabi f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

The patient was 3 years old and in her fourth pregnancy when she entered the clinic. At the onset of labor the child lay in the left occipito-anterior position. Dilatation was slow and difficult. The second stage lasted one and one half hours with powerful pains, the child being normal. The after birth and membranes showed no abnormality. On the day after delivery hematoma was noticed on the inner side of the right labium major. This was treated with cold applications, all pressure being avoided for fear of gangrene. The following day the swelling was larger but for fear of infection it was decided to wait. Finally after two days, with thorough disinfection, large incisions over the deepest part permitted the removal of large quantity of clotted blood. The cavity was not explored, it void possible recurrence, but was irrigated and packed with iodoform gauze. The hemorrhage did not recur and no infection set in. The large cavity filled up with granulations within three weeks, and mother and child were discharged in good condition. The author believes that in the absence of other organic causes the hematoma was due to the powerful efforts of the patient to deliver herself rather than submit to forceps delivery. FOLLAR

Brouha. Creation of New Vagina, with Report of Case of Transplantation of the Small Intestine into the Vagina (La création d'un vagin artificiel avec relation d'un cas de transplantation vaginale de l'intestin grêle). *Bull. Acad. de Med. de Belgique*, 9 3, xxvii, 20 and 31. By Journal de Chirurgie.

After summarizing the various old (generally imperfect) processes devised by surgeons to give vagina to women denied one by nature, the writer details full length upon the two methods which now vie with each other for the favor of the surgical world, viz. Schubert's, which takes the terminal portion of the rectum to make the new vagina, and Baldwin's, which for the same purpose uses a loop of small intestine.

Baldwin's operation, as modified by Stoeckel, was Brouha's choice to relieve the moral distress of a girl, 20 years old, who absolutely insisted upon operation. The first step was to burrow canal in the recto-vaginal septum up to Douglas pouch. Next the abdomen was opened through Pfannenstiel incision. There was no trace whatever of an uterus there were two ovaries flattened on the lateral pelvic wall and each accompanied by small parovarian cyst, which was removed. Then a loop of small intestine, inches long, was freed, due care being taken to spare the mesenteric attachment, and, by means of thread, said loop folded in its middle, V-fashion, was dragged through the incision in the peritoneum of Douglas' pouch down to the vaginal tunnel. Continuity of the gut was re-established and the abdomen was closed.

The third and last step consisted in bringing down to a level with the hymen the tip of the folded intestinal loop which filled the vaginal infundibulum. This was easily done the loop was opened, and its edges sutured to the edges of the cutaneous wound.

Three months after the operation there was between the urinary meatus and the anus a round opening admitting the finger and leading into canal 3 1/2 inches long which terminated at the spur formed by the angle of the kink of the transplanted loop. It will be easy to ascertain the functional result, as the patient will be married in few months. The paper is illustrated with several diagrammatic figures which enable the reader readily to understand at glance the described procedure. J. DUNN

Schmid. Vesico-Vaginal Fistula Cured by Transplantation of the Fascia Lata (Hämorrhoiden-piel, gebildet durch eine Fascientransplantation). *Zeich. f. gynäk. Urol., Leipzig*, 9 3, 14 33. By Zentrabi f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

The transplantation of the fascia lata as proposed by Kirschner has found extended use in surgery but a few reports only are found in gynecological literature. The use of fascial transplantation in operations for vesico-vaginal fistula is of recent date. In the patient referred to three negative attempts were made to close the fistula. The fascial transplants

tion in the fourth operation brought about a favorable result.

After separation of vesical and vaginal mucous membranes, the edges of the vesical fistula were freshened and the fistula closed in a transverse direction by four catgut sutures. After careful hemostasis a portion of the fascia lata of the right thigh was so sutured between vesical and vaginal mucosae that it covered the entire vesical fisture. To obtain as much tension as possible the fascia was sutured taut by catgut sutures at its four corners. Finally the vaginal mucosa was sutured in a longitudinal direction by the assistance of a relaxation incision. After operation attention catheter was used for 3 days. The patient completely recovered.

It is of the utmost importance that the fascial flaps be tightly stretched so they fold up thus interfering with the blood supply. The formation of a dead space or hematoma also interferes with healing. Small fascial flaps are better as the are less exposed to the danger of necrosis. The use of fascial transplantation is recommended in all cases of vesico-vaginal fistula which are not cured by primary fistula operation. Further for all primary operations of larger fistula if one does not succeed in uniting the vesical and vaginal mucous membranes. References are given. **BOERHA**

Savari Contribution to the Study of Primary Carcinoma of the Vagina (Contributo allo studio del carcinoma primitivo della vagina). *Atti del Congresso Ginec. 1913, Roma* 38

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

The author reports 26 cases of primary vulvar carcinoma occurring among the three hundred cases of carcinoma of the female genitals during six years in the hospital at Siena. He mentions the age, etiological factor and seat of the eoplasm (two cases developing during pregnancy). Only one case was not of the squamous celled type. Savari lays stress on the pruritus as an initial symptom. The internal and external glands become involved quite early and this explains the frequent recurrence after operation. Four of the other cases were inoperable. In operable cases, the author removes both internal and external glands as far as possible. Three of the cases showed post-operative recurrence, one developing from the remaining glands, the other two beginning in the scar. **BRENNER**

Graff and Novak Basedow Disease and the Genital Gland (Basedow Disease and the Genital Gland). *Deutsche Gesellschaft f. Gynäk., Halle* 93 May

By Surg. Gynec. & Obst.

The examinations of 36 cases of Basedow's disease showed diminished genital function in eighteen, increase in one and no change twelve. In ten cases the indications of primary ovarian deficiency were present. Dysmenorrhea was present in six cases, seven cases, which under the circumstances might have become pregnant remained sterile.

One patient who became pregnant, grew worse and improved under antithyroidin. Two got well spontaneously in the second half of pregnancy. One case with compression of the trachea and status lymphaticus died under anesthesia. One child was normal, one premature and one under-developed. In twenty-six cases, where the genital examinations were of value, sixteen cases were normal, one each had parametritis and parametritis atrophicans of Freund and three were atrophic probably senile. One 2 year old patient had a very small uterus, four had atrophied infantile genitalia and ten had other stigmata of hypoplasia. Basedow's disease often starts in puberty, pregnancy or the climacterium. One started after a hysteromyomectomy and another after X-ray castration for myoma.

Graff concludes that the genital system can be greatly influenced by the thyroid, and that the thyroid reacts sensitively to genital changes, partly perhaps through sympathetic changes. Individual cases must be examined carefully to determine the primary factor. **J. R. MULLER**

Griffenberg A Contribution to the Chemistry of Vaginal Secretions (Ein Beitrag zur Chemie des Scheidensekretes). *Deutsche Gesellschaft f. Gynäk., Halle* 93 May

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

The acidity of the vaginal secretions of any woman has a wide range of variation. By making a serial examination of the secretions of the same woman it becomes evident that the acidity is dependent on the menstruation for the percentage of lactic acid it seems higher before, during, and after the menstrual period. The fluctuations in the acidity are independent of the amount of menstrual flow, for they occur also during pregnancy and after uterine operations. There are no quantitative fluctuations in the amount of acid during the menopause.

Pollard The Treatment of Gonorrheal Infections with Targentan Suppositories (Die Behandlung gonorrhoischer Prozesse mit Targentan-Steichen). *Deutsche med. Wochenschr.* 83, 1907, 955.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

Targentan is silver albuminate combined with an astringent. In the preparation of the ordinary bougies an easily soluble fatty base is used which covers the mucosa with fat so that the bactericide can not act and stronger compounds cause irritation. These suppositories poor in fat, can easily be introduced into the female urethra. In this way it may be used by public women, who are rarely entirely free of gonococci as a prophylactic and thus protect the male. The ordinary suppositories are with difficulty introduced into the cervical canal, but the elastic targentan bougies can be easily introduced and a spreading of the gonorrheal process to the uterus and adnexa is not to be feared. The results of the treatment were good irritating actions did

not appear, the secretion and gonococci decreased. The use of these bougies in vaginal gonorrhea of girls is very successful, its action is lasting while solutions always are discharged. After iodoargentum has displayed its antiseptic action it continues to act against the inflammation and inhibits the secretion by its astringent substance in the form of tannin. Thus it removes the often long continued mucous discharges. It is also to be recommended for the chronic form of gonorrhea. Von Minckwitz.

Vogt Contribution to Melano-Sarcomata of the Clitoris (Beitrag zu den Melanosarkomen der Clitoris). *Arch f Gynak.* 9 J. xlii, 304.
By Zennaro and Gen. Gynak. Geburth. u. d. Gynak.

Vogt offers collect report of 8 primary melano-sarcomata of the clitoris, which have been published to date with the addition of personally observed case.

His patient as woman, years old, born arrived at the menopause 15. Nine months prior to the operation the patient noticed a bluish discoloration on the left labium with the formation of growth. The urethra was covered by the tumor but as not itself involved. Extirpation of the tumor with the lymph glands and the surrounding parts of skin as undertaken with successful recovery. Death ensued 3 months later from sepsis. Microscopical examination showed that the epidermis and corium were intact the tumor being situated in the subcutaneous adipose tissue. The pigment content of the cells was pronounced and pigment the shape of amorphous masses was found the lymph spaces and blood vessels. The superficial and deep lymph nodes have undergone malignant degeneration.

Melano sarcoma of clitoris, in contradistinction to vulvar sarcoma is found mostly in elderly women. The vaginal glands are always involved. Prolonged intervals before recurrence after radical operations have almost never been observed. The superficial and deep inguinal lymph nodes must always be removed even if they appear healthy on account of the great malignancy. Should they be involved then the iliac and hypogastric lymph glands also must be removed. Garbo.

MISCELLANEOUS

Kyllmann Thiry and Benesch Spontaneous Gangrene of the Genital Organs in Man and in Women (La gangrène spontanée des organes génitaux chez l'homme et chez la femme). *Paris med.* 9 J. li, 39.
By Journal de Chirurgie.

Among the reported cases of gangrene of the genital organs there are large number in which the pathogeny is but little understood namely those cases occurring in young individuals without organic deficiencies and whose hygiene is good. Foerster has given a remarkable clinical description of those rapidly progressing cases, to which he applied the name of spontaneous (febrile) gangrene.

This type, heretofore has been met with only in males. The authors, however have gathered three cases in women one of these being original and unpublished. The condition seems much more dangerous in women, very likely owing to the anatomical disposition of the female genital organs. In the female the mucous surfaces are very extensive and offer particularly favorable ground for bacterial growth, fascial septa are less developed, and, therefore, do not constitute as powerful barrier against the spread of infection. Furthermore, treatment is much less efficient, because it is very difficult to keep the gangrenous parts separated from the healthy skin or other gangrenous parts and, finally because the method of treatment so easy to apply in the male, free irrigation, or even continuous bathing, is not satisfactorily applicable here.

The three reported cases died. Their unpublished case is summarized as follows. a young girl, 18 years old, without any previous morbid history as admitted to the hospital for gangrenous sore in the labia majora, the groin and anus and ascending to the sacrum. She states that after a profuse diarrhoea bronchitis developed around the anal margin and became the starting point of the actual existing lesions. The perineal muscles are exposed as if dissected in an anatomical specimen gangrenous patches are seen on the fasciae and the wound emits an offensive stench. The general condition is poor temperature 97° pulse 90. The necrotic process progressed, the dead tissues fell off and soon cloaca took the place of the rectum and vagina the rectal ampulla was bared in the middle of the gangrenous focus. I injections of camphorated oil and electrargol were given without any appreciable benefit.

As cultures show the presence of Vincent's bacilli and spirilla, intravenous infusions of 0.45 gaseolysan were given at four days interval. This brought about a fall in the temperature and an improvement in the general condition. In the third week, two months (fetus with its placenta was expelled, the ovum being intact. Thereafter the general condition steadily grew one decubital ulcers developed and the patient died.

The autopsy did not disclose any important facts. The lungs exhibited cavitary tuberculous lesions. The uterine cervix was completely necrotic the os and os uteri intact, but all the soft parts of the region were involved and almost in state of disintegration. Bacteriological examination showed numerous Vincent bacilli and spirilla in the necrotic foci associated with many gangrene-producing micro-organisms (Loeffler bacillus, micrococci in chains or clumps, colon bacillus, etc.) J. Denow.

Chisholm Menstrual Melinemia. *J. Obst. & Gynec.* Brit. Emp., 912, xlii, 222. By Berg. Gynec. & Obst.

Chisholm has made careful inquiry into the frequency of disturbances of menstruation in otherwise healthy young girls and from an analysis of the

menstrual histories of 500 school girls of English middle-class concludes:

The majority of girls commence menstruation painlessly 58 per cent of the series had no pain.

1. That a number have discomfort, some occasionally some regularly for a time varying from one hour to two days just before and with the commencement of the menstrual period. This discomfort is often slight in character.

2. That a few have more severe pain, either regularly or occasionally. A very small number i. e. 1.8 per cent, are incapacitated.

3. That a small number i. e. 1 per cent have discomfort or pain for a longer period than one or two days during the whole time of menstruation.

4. That the discomfort in girls is most frequently local in character and when there is serious general disturbance it is accompanied by severe local pain, and probably proceeds from some local abnormality congenital or acquired.

5. That the best developed girls seem less likely to have menstrual disturbances.

6. That this freedom from discomfort is not affected by hard mental work carried on under healthy conditions. N. S. BREAST HEAVERT.

Henry Clinical Manifestations of Genital Tuberculosis in Women. *Med. Herald*, 193, xxi, 75. By Surg. Gynec. & Obst.

The author gives a very interesting review of this subject. His statistics are of particular interest. After a large number of autopsies on women dying from tuberculosis, by many observers, it has been found that the genital organs are affected in from 3 to 10 per cent while men dying from general tuberculosis have the genitals affected only about 1/4 to 1/6 as often. In 13 cases of genital tuberculosis reported by various observers, 8 involved the uterus. In 4,470 collected autopsies on women, some 53 had tuberculosis of the testes, while in autopsies on 1,616 tubercular women, 14 tubal cases were found. In 84 collected cases of salpingitis 29 were tuberculous. Of 394 cases of tuberculous lesions in the genitals 77 showed involvement of the ovary.

The author reports four cases of his own. He calls attention to the fact that abortions, gonorrhea, and other inflammations, as well as all injuries or contusions and general run-down or anemic conditions may be predisposing factors in the origin and development of genital and peritoneal tuberculosis. C. H. D. VAN.

Findlay Management of Genital Tuberculosis in Women. *Med. Herald*, 93, xxi, 8. By Surg. Gynec. & Obst.

The author reviews the subject and draws the following conclusions:

Genital tuberculosis, in women, is rarely a direct cause of death. The fatal issue is usually determined by the primary focus in the lung or bowel.

1. In fully half the cases there is no urgent indication for operative interference.

2. As genital tuberculosis is rarely primary the symptoms due to the primary lesion must be discriminated from those due to the lesion in the genital organs.

3. The symptoms referred to the genital organs will usually yield to palliative measures.

4. A radical operation is rarely justified for relief from symptoms caused by genital tuberculosis.

5. There is danger in operative interference from the awakening of a latent primary focus, from the high primary mortality in these cases, and from the unnecessary sacrifice of organs, inasmuch as spontaneous healing is a possibility as in tuberculosis elsewhere in the body.

6. In tuberculous peritonitis, the cause of death, in 90 per cent of cases, is chargeable to the primary focus.

7. In operating tuberculous peritonitis it is well to remove the testes when infected in order to cut off the source of supply to the peritoneum.

8. The utmost conservatism should be exercised in dealing with the ovaries and uterus in young women.

9. The exudative type (tuberculous peritonitis) is alone favorable to operation. Do not operate in the presence of fever or an active primary focus in the body.

In the absence of severe symptoms directly referred to the lesion in the genitalia or peritoneum, operative measures should give way to the usual hygienic measures, at least for an extended trial.

C. H. D. VAN.

Theilhaber The Influence of the Climacteric on Cancer (Der Einfluss des Klimakteriums auf die Carcinome) *Deutsche Gesellschaft f. Gynäk. Heilk.*, 93, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The connective tissue of the fetus contains a large number of cells, and as the individual grows older they become fewer in number. An exception occurs during pregnancy when the number of cells in the connective tissue of the genital organs rapidly increases. A very rapid decrease in the number of connective tissue cells occurs during the climacteric. The quantity of blood present in the genitalia shows a similar behavior and it steadily decreases, at least after the 30th year. An exception also exists during pregnancy and labor when the amount of blood increases markedly while it decreases rapidly during the climacteric.

The disposition to cancer is in inverse ratio to the richness of the connective tissue in cells and blood. Youthful age is almost immune from cancer of the genitalia. It very rarely develops during pregnancy and the puerperium while its occurrence is exceedingly frequent during the climacteric. The explanation of this is to be sought in a disturbance of the equilibrium between the epithelial and connective tissue cells caused by the few connective tissue cells

In contact with the corresponding epithelium for the connective tissue cell is the obstacle against the invading epithelial cell. The latter penetrates especially easily if such processes as extensive scar formation and chronic inflammations, causing a decrease of cells and blood in the connective tissue, already exist. The beginning invasion of the epithelium into the connective tissue is frequently rendered harmless by the reactive hyperemia and round-cell infiltration which immediately acts in. This reactive hyperemia does not obtain its purpose if a *restitutio ad integrum* is impossible on account of the marked anemia of the tissue with a resulting scanty round-cell infiltration (old inflammatory processes or extensive scar formations) or if causes of a general nature render the formation of round-cells difficult (extensive atheroma, atrophic degenerations in places where round cells are formed as the spleen, lymph nodes, etc.) These considerations should teach us to prevent recurrences after operations for cancer by increasing the strength of the entire body and by producing a hyperemia of the scar by dry cupping, massage diathermy injections of uterine extracts, etc. In the treatment of cancer also all those methods which excite hyperemia and round-cell infiltration as x-raying by the X-rays or radium choline, terine extracts, toxins, etc. are rational.

Häuser: Multiple Primary Cancers of the Female Genital Organs (Multiple primäre Carcinome des weiblichen Genitalepithels) *Arch f G u G* 3, 1907, 319.

By Zentrabl d ges Gynäk Geburtsh d Gynäcol.

If multiple primary tumors of the genital organs occur either in the different organs of the genital system (the breast and thyroid gland also belong to this system) or only in the uterus. In the latter organ they may be separated from each other or not. If uterine and ovarian cancers occur at the same time it is often very difficult to decide whether they depend on each other or whether the ovarian tumors are not metastases of other primary growths. In adenocarcinoma of the uterus and squamous and cylindrical cell cancers of the corpus occurring at the same time the question arises whether two primary cancers are concerned or only one. With a metaplasia of the epithelium the other. Although squamous epithelium has been repeatedly found in the uterus the latter explanation is the more probable one. It is only in the rarest cases that one may suppose that metaplasia preceded the formation of cancer. Only 3 cases have been recognized as multiple primary cancers of the uterus and Häuser here desires to add a fourth one. The 6 cases of multiple primary cancer in the different genital organs collected by Lubarsch, two probable cases can be added, and also one case of his own. The author's cases are as follows.

1. A multipara whose menopause occurred 3 years ago suffered for the last 9 months from bloody discharge with acidity. Bilateral ovarian tumors with peritoneal metastases and large uterus were found

at operation. The left ovary revealed a solid medullary cancer the right ovary peritoneal mucinous cyst, while in the uterus was an adenocarcinoma, and in the right tube metastases of the ovarian cancer. There was no evidence that the ovarian tumor was metastatic, the histologic construction also being against this. A multipara, 4 years old and at the end of pregnancy had had irregular hemorrhages for the last year. Cervical cancer was made out and Caesarean section with radical cauterization was performed. A sloughing cancer was found in the posterior lip, the largest portion of which was squamous called with epithelial parts. The smaller portion of the cancer which was found in the cervical canal was an adenocarcinoma. The cells resembled medium sized cylindrical epithelium and had borders and areas which were mucin stains positive. Both portions were intimately connected with each other without a distinct line of demarcation.

Aden Car

Goldstein: A Case of Acromegaly Following Castration in an Adult Woman (Ein Fall von Akromegalie nach Kastration bei einer Erwachsenen) *Fra J München med Wochenschr* 34, 1907, 757.

By Zentrabl d ges Gynäk Geburtsh d Gynäcol.

The patient, 35 years old, who as a girl showed a tendency toward gigantism, was subjected to a pan-hysterectomy for myomatous uterus. Enlargement of the hands and feet, thickening of the symphyseal epiphysis and protrusion of the eyebrows was noticed the following year. In short, an acromegaly developed due to an increase in the hypophyseal secretion without recognizable enlargement of the gland. From the lack of the neutralizing ovarian secretion, the organism became flooded with the accumulated hypophyseal secretion. The glandular apparatus governing the growth of the osseous system as not normal in this patient as is shown by the tendency to gigantism before and after the poorly balanced organism as shown entirely out by the exclusion of part of the secreting apparatus. As the absence of the epiphyse prevented an increase in the length of the bone thickening resulted.

Krebs.

Frans: Methods of Physical Treatment in Gynecology (Die physikalischen Behandlungsmethoden in der Gynäkologie) *Zeitschr f Anal Prakt* 9, 1, 2, 3.

By Zentrabl d ges Gynäk Geburtsh d Gynäcol.

Physical treatment is indicated for sterility combined with dysmenorrhea due to faulty development of the genitalia and for sterility which is caused by hyperinvolution after delivery. For such cases, binasal massage and electric current applied after Apostel's method for ten to fifteen minutes are recommended because they effect an improvement of the musculature and of the mucosa of the uterus.

Leucorrhoea and chronic inflammation after puerperal infection, vulvinitis, pelvic peritonitis, and adnexal tumors are considerably influenced by this

therapy: parametritis, however is not much benefited. Periproctitic exudates with scar tissue formation are similarly benefited.

Tuberculous diseases of the adnexa are inaccessible to physical treatment, and operation is the proper procedure. Gonorrheal inflammations are very favorably influenced by massage and heat here one hand massages outside, while the other one rests motionless in the vagina. The various methods of massage and of heat are discussed. One hundred and ninety cases of genital diseases which Franz treated were favorably influenced by his methods, while in 5.3 per cent there was no effect. X ray treatment is advocated for myomatous and climacteric hemorrhages. Improvement was observed in 59 out of 11 cases of myomata, or 83 per cent. The treatment is contra-indicated in pedunculated myomata which are partly expelled from the vagina when gangrene or carcinomatous degeneration are suspected in myomata with acute incarceration of the bladder and in women less than 4 years old.

MÖLLER

Walther Synthetic Hydrastinin Bayer a Substitute for Fluid Extract Hydrastis Canadensis (Synthetisches Hydrastinin-Bayer, ein Ersatz für Extr. Hydrastis canadensis Gleditsch). *M. Schenck. med. Wchschr.* 9 3 12, 604.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

This synthetic preparation of hydrastis is made from heliotropin. The writer has used it to advantage in menorrhagia the result of disturbed function of the ovaries and chronic diseases of the adnexa, dysmenorrhoea with menorrhagia, displacement of the uterus, secondary hemorrhage the result of heart disease or hepatic disturbances, and in cases of myomatous uteri. It is an excellent preparation for the after treatment of curettage. Dosage 5.3 drops, two to three times daily in cases of menorrhagia 0-5 drops, two to three times daily as prophylaxis, and after cessation of hemorrhage as well as in the cases of curettage. Secondary hemorrhage of 75 (= 7 drops of the liquor) had the same therapeutic effect.

FAKUNO.

Klots X Ray Treatment in Gynecology (Strahlen-therapie in der Gynäkologie). *Deutsche Gesellschaft f. Gynäk. u. Gyn., 913, May*

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author considers the fact that cancers can only be influenced by the X-rays when enormous doses are applied. The deep penetrating rays are necessary in examining the tumors after treatment it is seen that the tumor cells in the center of

the growth are frequently not reached by the rays. According to the experiments of Neuberg and Kaspari in animals there are certain substances which possess an affinity for heavy metals. It is also known that these substances cannot act unless they come in contact with each individual cell of the tumor which is impossible if the substances are injected subcutaneously or into the tumor itself. Therefore they must be applied directly into the blood stream from which each cell derives its nutriment. He advises on that account the simultaneous injection of these substances with the X ray treatment to attack the tumor from two sides. The author has lately begun this treatment at the Leubinger Gynecological Clinic, using silver substances, especially collargol intravenously with medium sized doses of X-rays and in addition radium bromide. Experiments with other metals (selenium and copper) are in progress. No results can be published, as the time of its employment is still too short. The author however advises the combined treatment in all cases of inoperable carcinoma of the uterus.

Frankl Technique of X ray Treatment in Gynecology (Zur Technik der Röntgen-Gynäkologie). *Gynäk. Rundschau*, 9 3 VII, 247

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The method of X ray treatment employed at the Schauta clinic in Vienna follows that of the Freiburg school multiple areas of application, cross-firing filtration and short focal distance. The instrumentarium made according to the author's design is as follows. For abdominal application compression of the abdominal wall with taut-drawn towel, over this a lead-rubber binder with marks designating the naves and the midline of this binder are outlined 4 synaxes of three cm. each. The tube is applied to each field. Its lower end fits into funnel-shaped tube protector the size of its lower opening corresponding to the size of the field and is adjusted to a 10 or 15 cm. focal distance from the skin. An aluminum filter can be inserted into the lower end of the funnel. For vaginal application of the rays the author uses a lead-glass speculum with an aluminum ring. The aluminum ring fits firmly into a hole in an adjustable stand. The hole in the stand is surrounded by four flexible pieces of lead-rubber to act as a covering for the vulva and thighs. The focusing of the tube in front of the hose is very simple, and a filter can be placed in front of it if desired. The author sees great advantage in rhythmic interruption. Tubes employed are the Radikologie and the Zentralrohr. MÖLLER

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Peterson: A Case of Full Term Ectopic Gestation with Dead Fetus Retained in the Abdominal Cavity for Eight Months. *Physician & Surg.* 9:1, xxiv, 194.

By Surg., Gynec. & Obst.

The author reports a case which he operated eight months after term. Most of the placenta was removed, but the patient developed peritonitis and died. The author believes that the placenta should be removed whenever possible even if to accomplish this, preliminary ligation of the large arteries or even compression of the aorta be necessary. When the placenta cannot be removed, the best results have followed the stitching of the sac to the abdominal wall and protecting it and the placenta from the peritoneal cavity by gauze packing. C. H. DAVIS.

Neugebauer: A Case of Pregnancy Five Years after Piccoli Operation for Puerperal Inversion of the Uterus (Über das Geburt 5 Jahre nach rekonstruierender Piccoliooperation wegen puerperaler Uterus-Inversion). *Zentralbl. f. Gynäk.* 912, xxvii, 530.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The author reports the case of nineteen-year-old woman suffering from an inversion of the uterus of three months' standing following spontaneous delivery. A cure was effected by means of a total posterior hysterotomy by the Piccoli method. Five years later she was spontaneously delivered of full term child. The expelled placenta was bilobed, a condition which the author assumes to have some connection with the operation, in so far as the placenta was situated on the posterior uterine wall and the connective tissue bridge between the two parts corresponded to the uterine scar which the villi were unable to penetrate. On the strength of this observation, the author suggests that in repeated Caesarean sections the site of the placenta should be determined and, if over the old scar it should be examined for the described abnormality. There are ten cases of pregnancy reported after an operative re-inversion of the uterus. The author concurs with Mansfeld in the opinion that inversion is due to torsion of the uterus and hypoplasia of the supravaginal system. SCHMIDT.

Krasnopolsky: A Case of Full Term Extra uterine Pregnancy with Living Child (Ein Fall von Ausseruteriner Extrauterintragvidität mit lebender Frucht). *Russk. Medicinskie f. Geburtsh. Gynäk.* 9:3, xxviii, 225.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäk.

A primipara 3 years old had been married 18 years and had always been well. The menses ceased

after August, 1904. From the third month on, she suffered from abdominal pains. There was a discharge of amniotic fluid at the fifth month, according to the statements of a midwife. Fetal movements were first noted at either the sixth or the seventh month. At that time the pains became more severe and vomiting supervened. In October 1905, a physician was consulted, who made the examination under anesthesia because of the pain. The outlines of the uterus were not visible, but the small parts of the fetus were felt directly underneath the abdominal walls. The heart sounds were heard above the umbilicus. Amniotic fluid with venous caseous flowed from the cervix. The internal os was dilated and the cervix found empty. It was enlarged, however corresponding in size to the third month of pregnancy. Upon opening the abdomen, the amniotic sac with a slight amount of fluid lay above the intestines and as it was found partially asphyxiated, full term fetus. The gestation sac represented the enlarged tube wall from which the placenta was detached. The uterus was permeated with dense knots, hence was removed by supra vaginal amputation. The mother's recovery was uneventful, but the child died fifteen hours later. The placenta weighed 533 gm. The membranes were torn at the uterine tubal os, which explains the discharge of amniotic fluid from the cervix. GILBERT.

Mallinckrodt: Full Term Pregnancy in Accessory Tube of Bicornate Uterus (Ovarien- & Uterus-entw. in der Accessorischen Uterus- & Uterus-entw.). *Arch. mens. f. d. Gynäk.* 914, II, 323.

By Journal de Chir.

The pregnancy was the result of a peritoneal migration of the ovum and sperm, since the tube uniting the normal tube to the accessory tube had no lumen and the corpus luteum was in the ovary on the opposite side. The normal tube as longer than usual, almost certainly because of gestational hypertrophy. The fetus had been dead for more than two months. There had been no casting off of placenta. The pains from which the patient suffered were probably due to the presence of adhesions with the appendix and the omentum. The differential diagnosis between intra-uterine pregnancy intra-ligamentous pregnancy and pregnancy in an accessory tube of bicornate uterus was based upon the palpation of normal uterus, of right round ligament which was attached to the superior lateral portion of the tumor, and by the palpation of the wall and the form of the tumor and by the observation of uterine contraction. L. CAMPBELL.

Siefert: Interstitial Pregnancy (Interstitialis Graviditatis). *Zentralbl. f. Gynäk.*, 9 3, xxxvii, 375.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

The author found forty cases in the literature of the extremely rare condition known as interstitial pregnancy. The condition is difficult to understand, since there is no sharp boundary between the uterus and tube. Thus pregnancies can be called interstitial only when the ovum is imbedded in that part of the tube which is within the uterine wall. This portion is only one centimeter long and by the growth of the ovum all boundaries are erased. French authors differentiate an utero-tubal and a tubo-uterine pregnancy.

The author diagnoses an interstitial pregnancy by its relation to the round ligament. When the round ligament is lateral to the ovum an interstitial pregnancy is present.

The author reaches the following conclusions: (1) Inflammations of the adnexa comprise the chief etiological factor in ectopic gestation. (2) The case should be operated on as early as possible because the patient may bleed to death from even the smallest perforations. (3) The diagnosis is difficult to make, on account of the few physical findings and the slowness of hemorrhage. (4) The perforation is always found on the posterior convex surface of the tube and usually occurs in the second or third month. (5) No ectopl. gestation of the interstitial type has ever been seen after the sixth month. (6) Vaginal operation is useless in these cases. H. voss.

Gall: Pituglandol in the Treatment of Placenta Praevia (Pituglandol in der Behandlung der Placenta praevia). *Zentralbl. f. Gynäk.*, 9 3, xxxvii, 324.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

Gall recommends in cases of placenta praevia lateral rupture of the amniotic sac and the injection of cc. of pituglandol. In placenta praevia centralis he performs version, if the cervical dilatation permits, otherwise he introduces the metre-urinary int. the amniot. sac and immediately injects cc. of pituglandol. As soon as the metre-urinary is expelled, he performs version and gain administers cc. of pituglandol. The expulsion of the fetus in either instance is left to the labor pains which are increased by the drug. Nine cases, one of lateral and eight of central implantation, were treated according to these principles and six living children were delivered. In the other three cases, the fetal heart beats could not be elicited when the patient entered the hospital. One anemic multipara died after version and extraction. KRESE.

Benthin: Carbohydrate Metabolism in Pregnancy and in Eclampsia; Few Words Concerning Insufficiency of the Liver (Über den Kohlenhydratstoffwechsel in der Gravidität und bei der Eklampsie; ein Beitrag zur Frage der Leberinsuffizienz). *Monatsschr. f. Geburtsh. u. Gynäk.*, 9 3, xxxvii, 307.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

The following conclusions may be drawn from the author's observations: Disturbances in carbohydrate

metabolism in pregnancy are only slight as a rule. With regard to alterations in carbohydrate metabolism some influence must be attributed to the glands of internal secretion, as these produce a temporary disturbance of the physiological equilibrium. Of the toxemias of pregnancy eclampsia alone shows any considerable deviation from the normal and manifests itself in the rapid increase of sugar in the blood, which is essentially conditioned by cramps. A material injury of the function of the liver is not to be assumed. Nevertheless, it should not be forgotten that functional disturbances of the liver in most cases do not manifest themselves until marked degeneration has set in. The absence of any differences whatever during pregnancy especially in those cases which are examined before the manifestation of eclampsia, therefore removes all grounds for assuming that functional disturbances of the liver are to be considered as an etiological factor in the development of eclampsia, so far as disturbances in metabolism of sugar come into question. The literature on the subject is discussed in detail. HIRSH.

Chiriac: Researches on Puerperal Eclampsia (Recherches sur l'éclampsie puerpérale). *Revue pédiat.*, 9 3, iv, 94.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

The author reports on experimental investigations and describes the action of increased blood pressure in the kidney induced within ten minutes by temporary ligation of the renal vein. Experiments conducted on twenty days corroborated the previously reported findings. The most important is the injury to the liver (necrosis of liver cells and kidneys). Potent poisons, substances, probably products of autolysis, immediately taken up into the circulation induce the clinical picture of puerperal eclampsia. From what organs these poisons are absorbed cannot be stated at present. Of the twenty-seven cases of eclampsia treated by venesection with drawing 700 to 1000 g blood, three died. If he excludes the two moribund cases, a mortality of only 4 per cent is found. The author advises venesection for the treatment of eclampsia.

E. WILLIAMS.

Zinsser: The Toxicity of Urine during the Puerperium and in Eclampsia (Über die Toxizität des menschlichen Harnes im puerperalen Zustand und bei Eklampsie). *Zentralbl. f. Gynäk.*, 9 3, xxxvii, 45.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

Pfeiffer's experiments prove that the poisons in toxicosis, the result of albumen decomposition, are excreted by the kidney. Typical clinical pictures are produced by injecting such toxins into guinea pigs.

Frank found the urine of healthy pregnant women to have no greater toxicity than that of ordinary urine. He also found that the toxicity increases during labor that the urine during puerperium is

somewhat more toxic than it is during normal pregnancy but less toxic than urine during labor. The urine of women with eclampsia is extremely toxic. This is true in those cases in which there is no damage to the kidneys as in those in which the kidney is affected. By determining the exact toxicity of the urine the author endeavors to fix prognosis on an exact basis and to control therapeutic procedures.

The conflicting results of Franz and Esch led the author to repeat some of the experiments. Intraperitoneal and intra venous injections of urine of pregnant women, often in labor and in puerperium gave no clue to the presence of albumin decomposition (toxemia) and his results agree with those of Esch. The results of intra venous injections of urine from eclamptic women are (1) It was impossible to kill a mouse by intra venous injections of eclamptic urine (2) It was not possible to get a clinical picture of the effect of such injections (3) the decrease in temperature had no direct relationship to the clinical progress of the disease. There was no characteristic type of temperature and the degree of damage done to the kidney had no direct bearing (4) In no instance was it possible to get a clue to the presence of decomposed albumin. *Hirano*

Zappi Consideration of the Treatment of Abortion (Considerazioni sul trattamento dell'aborto) *Clin. ovar.* 9 3 xv, 30
By Zentrabli, I. d. gen. Gynak. Geburtsh. d. Genaab.

On the basis of 44 cases from his practice the author adheres to the following principles: (1) In threatening spontaneous abortion (himal expectancy) (2) In purely criminal cases or such in which the suspicion of criminal interference exists, immediate interference (3) In spontaneous abortion in progress under favorable conditions (integrity of the product and good asepsis) careful expectancy (4) In opposite conditions, immediate interference. He also uses instrumental curettment and states its advantages over the digital method. He concludes that his views will not be accepted by obstetricians working under ideal conditions. Clinics and mentions the difficulties encountered in general practice such as lack of trained assistants, unfavorable conditions, lack of intelligence on the part of patients, especially among the laboring class, one being compelled to proceed actively to shorten the period of disability. *Serran*

Traugott End Result of the Conservative Treatment of Streptococcus Abortion (Endresultat der konservativen Behandlung des Streptokokken-Abortus) *Deutsche Gesellschaft f. Gynak. Heile.* 9 3 May
By Zentrabli, I. d. gen. Gynak. Geburtsh. d. Genaab.

The bacteriological examination of the uterine lochia of all the cases of abortion has shown the correctness of placing the indications for treatment on bacteriological examinations according to the proposition previously made by the author. All of the clinically treated cases of abortion, in which no kind

of bacteria were found present in the lochia secretion, are divided into two groups: 1. Abortions with obligatory saprophytes (resorption fever, bacteriotoxic endometritis) which were always emptied by the hand without the use of instruments (40 cases recovered without any adnexal inflammation, metastases or deaths). 2. Abortions with streptococci with hemolytic staphylococci and gonococci, in which conservative treatment reduced the morbidity as compared with active treatment, from 4. per cent to .9 per cent and the mortality from 8 per cent to .3 per cent. The indications based on the bacteriological findings also hold good for aseptic abortions, the mortality being reduced by the conservative treatment from 7.5 per cent to .9 per cent.

Minkoff and Zornakion Pregnancy During Leucemia and Its Influence on the Composition of the Blood (Schwangerschaft bei Leukämie und deren Einfluss auf die Blutszusammensetzung) *Reich.* 9 3 xii, 304.

By Zentrabli, I. d. gen. Gynak. Geburtsh. d. Genaab.

The patient, a 33 years old and suffered from leucemia since 1903 which markedly improved after X-raying and internal treatment 1 January 1911 the X-raying as interrupted on account of nephritis and severe X-ray burns. Pregnancy occurred in May 1911 and the patient was spontaneously delivered of a living child in February 1912. The general condition of the patient became worse on the 10th day of the puerperium. Rise in temperature, loss of eight and enlargement of and pain in the spleen appeared. The patient was treated with radium, iron and merck. An improvement took place at the end of April, 1912. The results of the blood examination, since the beginning of the disease are tabulated. The haemoglobin percentage decreased from 65 to 54 per cent before the occurrence of pregnancy and to 45 per cent during pregnancy. The number of red blood corpuscles fell from 3,104,000 to 4,000,000 to 3,500,000 or 3,000,000, while the leucocytes rose from 10,000-6,000 to 10,000-20,000. The differential count was 70 per cent to 75 per cent polymorphous neutrophils, per cent to 4 per cent myelocytes and large mononuclear cells, the homogeneous prothrombin. During labor the haemoglobin percentage grew to 55 per cent with 3,500,000 red blood corpuscles, the white to 7,000, chiefly neutrophils, while the number of eosinophiles and basophiles decreased. During the puerperium the haemoglobin percentage rapidly sank from 55 per cent to 45 per cent and the number of red blood corpuscles from 3,200,000 to 3,500,000. At the same time polychromocytes, polychromatophiles, oligochromatemia and nucleated red blood corpuscles appeared. With improvement in the general state of health occurring during April, 1912 the haemoglobin percentage increased to 45 per cent, the number of reds to 3,500,000, the number of white blood corpuscles was 93,300. The increase in the leucemic character of the

blood during pregnancy was attributed by the author first to the tendency of the leucæmic blood to again adopt its former composition after the interruption of the X-ray treatment and second to the complication with pregnancy. A section through the entire thickness of the placenta shows a microscopic examination a characteristic picture. The blood in the vessels of the chorionic villi (fetal blood) shows a normal behavior. The blood of the intervillous spaces (maternal blood) is typically leucæmic.

BRAUNE.

Albert. A Case of Severe Purulent Endometritis in Pregnancy (Schwere eitrige Endometritis in der Schwangerschaft). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. May.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk.

Albert reports another case of severe purulent endometritis in pregnancy. A multipara, delivered spontaneously within three-four hours, was suddenly seized with eclamptic-like symptoms and died five hours after delivery. At the autopsy the liver showed typical eclamptic changes and the kidneys nephritis; otherwise no important changes. The genitals were removed in toto and immediately placed in formalin and later sectioned. The macroscopic examination also evidenced suppuration, disease of the decidua with merous gram-positive diplococci. The diagnosis was suppurative endometritis intra graviditatem, probably the cause of the nephritis and eclampsia. If this observation is correct, complete revolutio must occur in considering the etiology of the toxæmia of pregnancy of some portions of premature labor and of many cases of puerperal fever.

Brodersen. Treatment of Pyelitis in the Pregnant (Die Behandlung von Pyelitis bei Schwangeren). *Nordt. Tidskr. Gynec.* 9. 3. 1909.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

Two cases of pyelitis during pregnancy are reported. The first one recovered after the daily use for 4 days of renal pelvis irrigations with a 3 per cent boric acid solution and 1 per cent silver nitrate solution. The second one had to be treated by permanent catheterization. The labors were normal, both cases mothers and children remaining well. Brodersen arrives at the conclusion that in milder cases of pyelitis complicated with pregnancy internal and detrusor treatment with lateral position on the healthy side and in the graver cases renal pelvis irrigation eventually with continuous catheterization, are indicated. No ever nephrectomy and premature induction of labor are to be condempned.

STRATZ.

Green. Cholecystitis and Cholelithiasis Associated with Pregnancy. *Annals of S. S.* 9. 3. 1909, 679.
By Surg. Gynec. & Obst.

The author reports two cases and concludes that there seems to be definite causal association of

cholecystitis and cholelithiasis with pregnancy. Symptoms due to either of these conditions may occur during pregnancy during puerperium following labor at term or after miscarriage. The existence of gall bladder disease is not in itself a cause of miscarriage, but miscarriage may induce the development of active symptoms from a process previously latent. Cholecystitis or cholelithiasis should receive the same surgical treatment and bear the same prognosis as in cases not associated with pregnancy.

C. H. DAVIS.

Vogt. Addison Disease and Pregnancy (Morbus Addisonii und Schwangerschaft). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. May.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

Clinically Addison's disease is difficultly diagnosed. Only two cases of Addison's disease and pregnancy which were confirmed by post mortem examination have been reported in literature, one by Barlow and one by Vogt. The course of pregnancy was undisturbed and the adrenal disease did not grow worse. Labor was spontaneous and uncomplicated. Women suffering from Addison's disease are exposed to greater danger during early puerperium than during pregnancy and labor. The course of the disease in the puerperium is similar to that of secondary and pernicious anemia and in some cases of tuberculosis during pregnancy. It has not yet been decided whether death is due to insufficiency of the adrenal system or to tuberculosis of the adrenal glands. The existence of Addison's disease does not give an indication for an interruption of pregnancy as pregnancy does not cause an advance of the disease. Our endeavor should be to save the child which may develop perfectly, as the prognosis for the mother is bad under all circumstances.

Dress. Pregnancy Labor and Puerperium in Case of Extensive Unilateral Telangiectases and Varicose Formation with Lymphatic Elephantiasis (Schwangerschaft, Geburt und Wochenbett bei ausgedehnter halbseitiger Telangiectase und Varicenbildung mit lymphogeklastischer Elephantiasis). *Ber. Klin. Wochenschr.* 9. 3. 1, 779.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

The author reports the case of a primipara aged twenty-three, giving a detailed description of the changes on the body and showing a picture of the limb. He also renders a complete account of the pregnancy labor and puerperium. During the puerperium the skin changes did not improve materially. Prophylaxis against thrombus formation is important in this stage (elevation of the affected limb, immediate movement and stimulation of the circulation, early rising and walking of the patient). He gives a complete review of the literature. In all published cases the abnormality dates back to birth and is aggravated during puberty and after trauma. The etiology is entirely unknown, but an involvement of the nervous system is probably present.

EISENHART.

Mosbacher Thyroid and Pregnancy (Klinisch experimentelle Beiträge zur Frage Thyreoidismus und Schwangerschaft) *Deutsche Gesellschaft f. Gynäk. Heile*, 9.3. May By Surg. Gynec. & Obst.

Pregnant animals abort when fed thyroid. Thyroglándol causes uterus contractions in rabbits. When this reaction fails it can be brought out by previously giving adrenalin. Adrenalin activity is enhanced by doses of thyroid. Labor pains can be increased and strengthened by thyroglándol which is combined with adrenalin and gives similar results to pituitrin. Iodine in organic combinations can be demonstrated in eclamptic blood. Observations on a large number of animals deprived of thyroid lead Mosbacher to conclude that reproduction is not disturbed by loss of thyroids and parathyroids, if the animal is otherwise healthy J. R. MINER

Graff Thyroid and Pregnancy (Schilddrüse und Gestation) *Deutsche Gesellschaft f. Gynäk. Heile*, 9.3. May By Surg. Gynec. & Obst.

Six hundred and fifty-four cases in the second half of pregnancy were examined. Enlargements of the thyroid were noted in three hundred and nineteen or 49 per cent only twenty-one said the enlargement began in pregnancy twenty-four said the tumor had been smaller and had increased more or less during pregnancy. Viennese women had enlargement in only 44 per cent of the cases. Five hundred non-pregnant women showed an enlargement of the thyroid to the extent of 40 per cent hence pregnancy would account for only 9 per cent of the enlarged thyroids. During labor 35 per cent of the cases measured showed an increase in the neck circumference, of whom 60 per cent had no enlarged thyroid. Such enlargements recede in few hours, but in few cases there was no decrease, fact noted by many women.

Spontaneous glycosuria was found in 38.8 per cent of five hundred postpartal women, 5.8 per cent with struma, 1 per cent without. A lowered tolerance for alimentary glycosuria was noted in 58 per cent as against 24 per cent of the cases with struma who had no struma. Albuminuria however occurs in 16.6 per cent and 1 per cent respectively. Eclampsia cases have enlargements of the thyroid less often than normal ones.

Ovary tablets had no action on the struma. In one hundred cases in the postclimacterium, 1 only noted enlargement of the thyroid in the climacterium. In one hundred and twelve myoma cases the thyroid as enlarged less frequently than normally contrary to Freund. J. R. MINER

Aechner Changes in the Pinea! Glands! Pregnancy (Schwangerschaftsveränderungen der Zirbeldrüse) *Deutsche Gesellschaft f. Gynäk. Heile*, 9.3.15 By Surg. Gynec. & Obst.

Guinea pigs, rabbits, dogs and cats were examined 1 pregnancy after castration and in the normal state. In cats the vaginal gland is conical shaped

whereas in pregnancy it is plumper and broader. After castration atrophy takes place. Once pregnant, the animal nerve regulates the typical cone shaped gland. Histological changes are not very characteristic. Aechner refers to similar work by Balach and Holmes, and the observation of precocious sexual development in connection with tumors of the pineal glands described by Marburg and Frank-Hochwart. J. R. MINER

Seitz Disturbances of Metabolism in Pregnancy Labor and the Puerperium (Die Störungen des inneren Sekretions in ihren Beziehungen zu Schwangerschaft, Geburt und Wochenbett). *Deutsche Gesellschaft f. Gynäk. Heile*, 10.3. May By Surg. Gynec. & Obst.

() Proteid. The thyroid chromaffin system, hypophysis and ovary increase, and the pancreas and parathyroid decrease, proteid metabolism. In the second half of pregnancy there is retention of proteid. In the puerperium there is at first loss, then a retention occurs. Less urea is excreted in pregnancy but the ammonia, creatin, amino acids and polypeptide are increased. A liver insufficiency has not been proven but is possible. Sarcotactic acid is secondarily increased in eclampsia. Placenta of the same species may cause anaphylaxis in the mother (fetal serum, however does not. Not only the molecular proteid components, but diamine acids and amines, cause anaphylaxis, the former more generally toxic and paralyzing in its effect the latter causing spastic symptoms. Clinically there are two types of symptoms, the generally tonic and the spastic. A present it is impossible to separate disturbances in proteid metabolism into two groups, anaphylaxis and internal secretory disorders. The antitryptic ferment in the blood is increased in pregnancy not specifically however. Abderhalden's reaction is not absolutely specific and must be further tested in the clinic.

(b) Carbohydrate. The thyroid hypophysis and chromaffin system increase the sugar metabolism the pancreas and probably the ovary and parathyroid tend to check it. A light transitory glycosuria occurs in about 10 per cent of the pregnancies. A lasting glycosuria is rare. In pregnancy sugar appears more frequently in the urine after the ingestion of 50-50 gm. of grape sugar. Subcutaneous injections of adrenalin do not cause glycosuria more often in pregnancy. Lurajo's tests show only a slight decrease in the liver function. The sugar content of the blood is not increased in pregnancy but is in labor. A carbohydrate disturbances appear in eclampsia. Diabetes mellitus influences menstruation in various ways only 3 per cent of cases become pregnant. Diabetes cases are often made worse by pregnancy probably due to the affection of the internal secretions 30 per cent of the cases die in coma, and about 50 per cent of the children die in utero. Pregnancy should be interrupted in cases which become worse in spite of treatment.

(c) **Fat** Pregnant women cannot catabolize fat as well as normally and ketonuria occurs more frequently. A decrease in the lipolytic serum ferment has not been shown. In the last six months of pregnancy there is hyperlipemia both glycerol and cholesterolin fat are increased. In the puerperium, cholesterolin is excreted by the breasts. Functionating genital glands appear to decrease the cholesterolin formation, however it is not justifiable to judge the function of the ovaries by the cholesterolin. It has not been shown definitely that an increase in cholesterolin in the blood favors the advance of tuberculosis in pregnancy. The increase of cholesterolin in eclampsia must be corroborated. The liquid body in the blood which causes the coagula reaction is increased in pregnancy and also in carcinoma, toxæmia, eclampsia and other conditions. Obesity is due to over-feeding lactation and also to disturbances of the internal secretory glands especially the thyroid secretion. The removal of the genital glands predisposes to best obese periods, especially the endogenous type are often sterile. A particular trouble is to be expected at labor.

(d) **Mineral** The proof of clear relation of mineral metabolism to the internal secretory glands is insufficient. There still seems doubt that calcium and phosphorus metabolism is increased or that calcium is increased in the blood. Removal of the parathyroid seems to reduce calcium metabolism. The thyroid hypophysectomy and perhaps the parathyroid increase bone metabolism in the ovaries decrease it. The adrenals have no influence in this regard. A physiological osteomalacia in pregnancy has not been proven. In pregnancy calcium phosphorus and magnesium are retained. The body accomplishes this by better resorption lessened excretion and more economic metabolism. The hypophysectomy probably under the influence of the fetus, normally causes an increase in the bony development of the pelvis in pregnancy.

RELATION TO PREGNANCY OF THE INTERNAL SECRETORY ORGANS, NORMALLY AND PATHOLOGICALLY

Thyroid and pregnancy The thyroid increases in size in 65-90 per cent of pregnancies, usually returning to normal in late puerperium. This is due to hypertrophy and hyperplasia of the secretory tissue. Puberty and menstrual enlargements are due to an ovarian hormone. Pregnancy hypertrophy of the thyroid is brought about by placental substances. Castration hypertrophy is a complementary reaction. The thyrotoxic theory of eclampsia is tenable proof is likewise lacking for its connection with hyperemesis and puerperal psychosis.

Basedow's disease and pregnancy Light forms of hyperthyroidism are common in women. Thyrotoxicosis and chlorosis should not be confused with it. The thyroid is often affected at the same time. Presistent thyroid being serious complica-

tion. The chromaffin system is altered in hyperthyroidism. A somotor and other sympathetic groups are more sensitive. Sympatheticotrophic individuals are more affected than vagotrophic. The ovarian function is usually not disturbed in Basedow's disease if at all it is reduced and these patients are more often sterile. In 4 per cent of the hyperthyroidism cases no changes occur in pregnancy. In 60 per cent of combined statistics the condition is made worse. Pregnancy is not to be reckoned as specifically injurious. Premature birth and abortion are seen more often than in non-pregnant women. Statistics give 6.4 per cent mortality for pregnancy in hyperthyroidism, heart injury, persistent thyrotoxicosis and general intoxication causing the deaths. Abortion was performed in 4 per cent and premature labor induced in 8 per cent. Atonic hemorrhage occurred in 7 per cent of the cases, caused by decreased coagulability of the blood. Children are little endangered, but can inherit a neuropathicanlage.

Consent to marry is to be withheld in bad cases. In light cases of pregnancy should be urged till improvement takes place. Every hyperthyroidism must receive general treatment. If the condition grows worse strumectomy and not abortion is indicated.

Struma and pregnancy Struma is usually enlarged in pregnancy only a few however cause compression symptoms. If this occurs strumectomy is indicated. If the child is viable the force lies between strumectomy and induction of labor. Most of the compression symptoms recede after birth. In 5 cases of strumectomy in pregnancy the maternal mortality was 1 per cent in 6 per cent pregnancy was interrupted.

Parathyroid and pregnancy The parathyroid seems to be connected with calcium metabolism. No morphological changes in the gland during pregnancy have been shown. In the last months and especially in labor the galvanic excitability of the nerves is increased, this indicating similar changes to those seen in tetany. Patients with arthritis or paralytic in the extremities should be tested for galvanic excitability the condition may possibly be a latent tetany or parathyroid disease. Tetany of pregnancy is rare. Those reported in the last fifteen years are almost all in pregnancy and not in lactation. This condition is probably parathyroid insufficiency as these glands have increased work to do in pregnancy. In tetany of pregnancy injuries of other internal secretory glands are found, and the disease is very severe especially attacking the respiratory muscles. The mortality is 7 per cent. The therapy should be parathyroidin and calcium. When the respiration is seriously threatened pregnancy should be interrupted although this often does not give results. Eclampsia is not dependent on these glands.

Thymus and pregnancy Persistence of the thymus may stimulate Basedow's disease. The chief symptoms are heart disturbances and lymphocytosis. The ovary exerts an antagonistic influence over the thymus. A persistent thymus is said to grow smaller

In pregnancy. More attention should be paid to status lymphaticus.

Hypophysis and pregnancy. The anterior lobe of the hypophysis regularly undergoes considerable hypertrophy in pregnancy, and is due to an enlargement and increase in the chief cells with their transformation into the so-called pregnancy cells. Resection of the whole gland in animals causes cessation of genital growth and injury to the fully developed ovaries. Further work is necessary to corroborate Aschner's work, that the hypophysis is absolutely necessary for the existence of pregnancy. The increase of the anterior lobe probably assists in the growth of the placenta and perhaps of the pregnant uterus. Marked hypertrophy in pregnancy may lead to cerebral symptoms. Symptoms of acromegaly occasionally occur such as enlargement of the hands and feet and the typical acromegaly can begin in pregnancy (Marek). Acromegaly usually leads to amenorrhea and sterility but if pregnancy occurs it need not be interrupted. The posterior lobe has up to now shown no hypertrophy in pregnancy. Pituitin from the posterior lobe increases the labor pains if already present. Pituitrin is chemically closely related to B. immanolythyramine.

Adrenal and pregnancy. The adrenal in pregnancy undergoes hypertrophy in the fascicular and reticular parts of its cortex. The occurrence of vacuoles and the increased pigment in the reticular cells means increased secretion. Changes in the cortex in toxemias of pregnancy need to be studied further. The cortex contains more cholesterol than normal, indicating that it is the seat of the lipodermis. The medulla hypertrophies little if any. The adrenals are absolutely necessary for conception, pregnancy and labor pains. The proof of an increased amount of adrenalin in the blood in pregnancy is insufficient. The pigmentation of pregnancy is probably connected with the increased adrenal function. Addison disease, ovarian function is disturbed and sterility is the rule. Tuberculosis is responsible for the serious effect of pregnancy in Addison's disease.

Ovary and pregnancy. The internal secretion of the ovary protects the development of the female characteristics. The corpus luteum probably (Born Fränkel) starts menstruation, and prevents further ovulation. It also is very important for the implantation of the ovum. One should examine cases of habitual abortion for irregular corpus luteum growth. Its function lasts only during the first month of pregnancy later in pregnancy the interstitial glands develop. They probably work synergistically with the corpus luteum, and, by analogy with the interstitial glands in the male, probably govern the sexual desire. Changes of the interstitial glands in pregnancy are stimulated by placental villi. The pathological overgrowth of villi in moles and chorioepitheliomas bring about lutein cysts. Ovulation ceases in pregnancy as rule. The relation of corpus luteum to hyperemesis is unexplained.

Osteomalacia and internal secretion. Osteomalacia shows changes in muscle and nerves as well as in the bones. Animals with calcium free diet do not present the real picture of an osteomalacia. Calcium and phosphorus experiments have not given clear results. Castration cures 87 per cent and in the puerperium 93 per cent improve. Definite morphological changes in the ovary have not been proven. Clinically the disease is due to a hyperfunction of the ovary. Disturbances of other glands of internal secretion often occur and predispose to osteomalacia. Hunkeler's hyperthyroid theory is untenable. Osteomalacia has not been produced by resection of the adrenals, yet adrenalin cures 54 per cent and improves 50 per cent of the cases. I identify the ovary and chromaffin system as antagonistic. The disease may be due to decreased chromaffin activity (Christofaletti). The parathyroids show hyperplasia, and tetany often occurs together with osteomalacia. Phosphorus treatment cures 68-78 per cent. Exogenous factors play an etiological role only.

Mammary glands and pregnancy. Growth of the breast is influenced by a hormone, the nerve reflex theory being untenable. Puberty hypertrophy and the menstrual changes are governed by the internal secretion of the ovary. The hypertrophy of pregnancy can be artificially produced by the injections of embryological tissue and of placenta. The breast and ovary are antagonistic. Outside of this, no internal secretion has been proved for the mammary gland. Cholesterol ester is excreted with milk. The relation of exophthalmos to the mammary internal secretion is not clear, and analogy with cattle paralysis is not to be accepted.

Placenta. The placenta is an organ of internal secretion producing (a) changes in other glands in pregnancy (b) chorio-epitheliomas and moles in association with lutein cysts in ovaries, (c) changes in the breasts of pregnant women and in the breasts and testes of the new-born. Further action by means of deported villi causing ferment and anaphylactic reaction, is now being worked out.

J. R. MINZA.

Krause. Heart Lesions in Pregnancy (Hirschfelder und Schwannschacht). *Deutsche Gesellschaft f. Gynäk. u. Geburtsh.*, 1913, May.
By Sarg. Gynec. & Obst.

Among 23,577 labors, pregnancy was interrupted 26 times for vitium cordis, (6 times for mitral insufficiency and stenosis, 3 times for diseases of the aorta and 7 times for myocarditis) with deaths—0.003 per cent. Light cases should be treated with rest and control of the heart and up. gr. of the urine. If the symptoms do not disappear in two days or when broken compensation is present, give medical treatment. If edema, cyanosis and urine of high sp. gr. continue, interrupt pregnancy. The condition is complicated with septicemia, struma, etc., in one half of the cases. Classical Caesarian section is to be preferred to the vaginal.

J. R. MINZA.

Aachner: Albuminuria in Pregnancy (Untersuchung über die Schwangerschaftsalbuminurie)
Deutsche Gesellschaft f. Gynäk. u. Geburtsh. 913, May
 By Surg. Gynec. & Obst.

Aachner examined, by means of Abderhalden's serum reaction, the urinary albumin of pregnancy nephritis and eclampsia. The eclampsia albumin is digested by pregnant serum. Eclampsia serum does not digest the eclamptic albumin as well as the pregnancy albuminuria product corresponding thus with the placenta reaction. Thus the albumin of pregnancy toxemia differs from that of nephritis.
 J. R. MINER.

Balch: Researches Concerning the After Life of Pregnancies Complicated by Heart and Kidney Lesions (Untersuchungen über das spätere Schicksal Herz- und Nierenkranker Schwangerer)
Deutsche Gesellschaft f. Gynäk. u. Geburtsh. 913, May
 By Surg. Gynec. & Obst.

The author examined 305 heart and 50 kidney cases as well as 450 cases of pregnancy kidney occurring in the last 3 years among 1,000 births. The kidney of pregnancy presents no complications. Nephritis of pregnancy occurred in 26 cases, 7 per cent 37 per cent of these are eclamptic. Only one of the complicated nephritis cases died, due to myocardial degeneration, 4 per cent went through normal pregnancies, 1 per cent of the children were dead and the rest premature. Operative labor was necessary in 55 per cent and premature separation of the placenta often occurs. In 20 nephritic cases which were controlled 9 died in the first year 6 out of 60 eclamptic cases died and 1 per cent remained invalids. In 13 cases of Bright's disease, 4 died in the clinic and during the next year. Interruption of pregnancy is indicated in chronic nephritis, but in acute nephritis viable child can be waited. Ten hundred women with valvular lesions developed decompensation, one fourth of them serious 5 died during labor and 3 in the following year. Of the controlled cases 50 per cent were well, 45 per cent were invalids and 5 per cent were dead and third of the children were premature. Five out of 9 cases of myocarditis died in labor and the following year. Aortic hemorrhage occurred in 40 per cent of all heart cases. Myocarditis or heart lesions complicated by nephritis are indications to interrupt pregnancy.
 J. R. MINER.

Schlager: The Interruption of Pregnancy in Diseases of the Kidneys (Schwangerschaftsunterbrechung bei Nierenerkrankung)
Deutsche Gesellschaft f. Gynäk. u. Geburtsh. 913, May
 By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The differentiation of the kidney of pregnancy from genuine nephritis, according to the author is misleading, and in many cases impossible. He questions the advisability of making clinical entity of the former. He believes a better working basis is obtained by differentiating the nephritides accord-

ing to their influence upon the organism, as valuable conclusions may then be drawn as to when an interruption of pregnancy is justified.

Schlager lays down the indication for and against abortion and premature labor. He employs the simple method of observing the daily excretion of the kidney on a definite diet, by which definite conclusions in regard to the diseased kidney can be drawn. This method will also show that a seemingly harmless kidney of pregnancy in spite of the disappearance of albumen, has not recovered entirely but has only become latent. Balch's conclusions are identical with those of the author that kidney changes of pregnancy more frequently result in permanent kidney disease than heretofore supposed.

Fuchs: Bilateral Ovariectomy during Pregnancy (Doppelseitige Ovariectomie in der Schwangerschaft)
Monatsschrift f. Geburtsh. u. Gynäk. 913, xxviii, 515.
 By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

A multiparous patient whose last menses began Sept. 20th was operated on Nov. 7th for the removal of bilateral pseudo-mucinous papillary cystadenoma. Pregnancy was uninterrupted three months after operation. The author advises the removal of both ovaries in all cases of papillary tumors during pregnancy even though one ovary appears perfectly healthy macroscopically unless the patient, to whom the matter has been thoroughly explained, is decidedly against castration.
 ZIESSER.

LABOR AND ITS COMPLICATIONS

Eich: How Many Full Term Children in Cephalic Presentation Pass the Inlet Spontaneously in Flat Pelvis and are Born Alive (Wie viele ungetragene Kinder passieren beim flachen Becken in Schädellage spontan das Beckeneingang und kommen lebend zur Welt?)
Deutsche Gesellschaft f. Gynäk. u. Geburtsh. 913, May
 By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The usual contrast between spontaneous births and those terminated by operation does not permit reliable conclusions to be drawn as regards the influence of flat pelvis. This contrast is also unsatisfactory from a therapeutic standpoint, as the indications for operative interferences in cases of flat pelvis, excluding funnel pelvis, are the same as in the normal pelvis. Hence Eich chose the normal cephalic presentation to answer the above question, the mechanical influence of flat pelvis being the most favorable in this presentation. Only such cases of his own and of the literature were considered which were treated expectantly until danger to the child arose. In cases with a cojugata vera of 10 to 9.6 cm. 37 (96 per cent) children passed the inlet spontaneously in cases with a vera of 8.5 to 7.6 cm. 487 (74.7 per cent) children entered spontaneously and in cases with a vera of 7.5 to 6.5 cm. only 20 (4.9 per cent) entered spontaneously.

Eich draws the conclusion that the curve thus obtained represents the results of cephalic presenta-

tions in flat pelvis most accurately. It advises the use of the curve especially for teaching purposes.

Treub Breech Presentations in the Amsterdam Clinic for Women from 1902-1911 (Die stuhlgangen in der Amsterdamsche Vrouwenklinik von 1902 bis 1911) *Nederl. Tijdschr. Verlesk. en Gynaec. Huzaren*, 9, 3, 201, 3.
By Zentrālā. I. d. ges. Gynäk. u. Gebärtsk. d. Grenzgeb.

With regard to the opinion of J. A. der Hoeven, who rejects the external prophylactic version in breech presentations, being in favor of watchful expectancy until extrusion of the os. Treub has reviewed his material on this question. In the last ten years, out of 543 births 24 were breech, from which 33 children and one birth of triplets are subtracted. This gives a percentage of 3.7 per cent. There were 95 full term babies, 74 premature children and 5 macerated. Of the full term babies, 65 were from multiparae and 30 from primiparae. Of the 65 multipara children, 22 died soon after birth and 4 later giving a mortality of 5 per cent. Of the primipara children 6 died soon after birth and 1 later leaving a mortality of 4 per cent.

In 7 cases out of 4 the external version was performed and in 4 it was not successful. There were three cases in which the child could have died without version. Extraction was done in 6 cases, and all the babies lived. 1 case which was spontaneous p. to the sacrum, all babies are dead or deeply asphyxiated. J. A. der Hoeven's smaller statistics show better results but do not prove the correctness of the method but merely that his series of cases is more successful. Treub still is firm adherent of the external version and also the extraction by one foot. Sitz 72

Björkenbergs Case of Rupture of Vaginal Fornix during Labor (Zur Kasuistik der Kolporrhoe nach partu) *Zentrālā. f. Gynäk. u. Geburtsh.*, 10, 3, 217, 10.
By Zentrālā. I. d. ges. Gynäk. u. Gebärtsk. d. Grenzgeb.

The case is of a woman, 37 years old, octopara. Preceding labors were normal and easy. Last menstruation occurred September 9. State of health during pregnancy as good. Labor commenced the afternoon of June 9. Rupture of sac during succeeding night. Strong bearing down pains occurred during the entire night. Decrease in strength and frequency toward morning. The uterine os was completely dilated. Child's head was large, and freely movable above the pelvic inlet. As the fetal heart sounds were irregular and weak, repeated but unsuccessful attempts at delivery by forceps were made. Version and extraction of child succeeded easily. The head passed with the greatest difficulty through the upper pelvic aperture. The child was dead and was not weighed. Fracture of the clavicle and dislocation of cervical vertebrae. After waiting one half hour the physician made no attempts to express the placenta by Crile. The uterus was well contracted and unusually small. Attempts were made to deliver placenta manually.

The hand was introduced into the vagina and attempted to reach the placenta along the umbilical cord. The hand entered a large cavity to the left of the empty uterus. The placenta was not reached but the hand felt intestinal loops through the opening. Tamponing of the vagina with gauze. General condition good. There was no sign of severe hemorrhage. The patient was transported by horse and wagon 20 km. and made trip on the railroad of one hour to Helsingborg. Her general condition was quite good, no elevation of temperature pulse strong, not accelerated. The umbilical cord led into the left vaginal. In the left parametrium and thence into the abdominal cavity. There was left lateral and anterior rupture of vaginal fornix (colporrhoea). Extraction of the placenta by umbilical cord without any marked loss of blood. After anesthesia laparotomy longitudinal incision. A wound 10 cm. long as found in the peritoneum in the place vesico-utero at the junction of vagina and uterus extending from before to the left side of the vagina. The vagina, however, anterior all was torn from the cervix to the extent of about 6 cm., communicated with the abdominal cavity. He then sutured the vagina to the cervix, the peritoneal tear. The parametrium was packed with iodoform gauze toward the vagina. The abdominal incision was closed in three rows with gauze drain in the lower portion of the wound. Perfect healing resulted. Convalescence as disturbed by right-sided rodentia pneumonia. The patient was discharged, cured. Hunt

PURPERIUM AND ITS COMPLICATIONS

Loef A Contribution to the Etiology of Late Puerperium (Beitrag zur Ätiologie der Spättoxämie im Wochenbett) *Deut. Geburtsh. u. Gynäk.*, 9, 3, 216, 3.
By Zentrālā. I. d. ges. Gynäk. u. Gebärtsk. d. Grenzgeb.

The author discusses three cases of sudden hemorrhages in the late puerperium with pronounced tendency to recurrence. One of the cases was personally observed by him, the second occurred in the practice of Vert and the third has been reported by Bloemen. All three cases were due to rupture of large arterial vessel by trauma during labor. The tissues surrounding the wound were closed either by suturing or spontaneous healing, yet the vessels remained open. A pseudo-aneurysm gradually formed beneath the freshly healed wound edges as a result of hemorrhage from the open arteries. Increasing pressure caused rupture of the freshly healed wound tissue when the patient was evidently recovering. The repeated hemorrhages finally led to death.

The clinical course of these cases is therefore characterized by hemorrhages occurring successively in the late puerperium, followed by an interval of complete arrest of the bleeding. The reacting powers of the tissues gradually decrease due to exhaustion. An inclination towards infection of the

stagnated blood and the thrombi appeared. Finally death resulted from anemia. The only treatment indicated is antistipation of the uterus as soon as possible after the first recurrent hemorrhage.

JARROLD.

Zangemeister Inversion of Uterus in Puerperal
tam. (Über puerperale Uterusinversionen) *München
med. Wochenschr.* 23, 12, 65.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Inversion of the uterus in puerperium occurs once in 400,000 births, three times as frequently in primipara as in multipara, and ten times as frequently at full term as in premature births. Too early expression of the placenta and pulling on the cord are the most common etiological factors. Predisposing causes are short cord, precipitate labor, operative procedures, and adherent placenta. Occasionally an inversion occurs spontaneously. Inversion sometimes occurs without symptoms. Usually is accompanied by severe shock, and terrene hemorrhage. Septic infection occurs in 1 per cent. The mortality is 6 per cent. Treatment is as follows: Combat hemorrhage and shock, then replace uterus. In uncomplicated cases of inversion, tampon or colpeurynter is placed in vagina, and a tight external compression is applied. In twelve to twenty-four hours the uterus is replaced manually, the hand removed, ergot given, the uterus massaged. Three per cent of cases are reduced spontaneously. Operative interference is indicated when reductio is impossible or when complications occur.

RUTHER.

Zink A Critical Review of the Medical and
Surgical Treatment of Puerperal Eclampsia.
Lancet-Gaz. 1913, cx, 603.

By Serg., Gynec. & Obst.

The treatment of eclampsia demands not only a deliberate and thorough consideration of its pathologic course and prognosis, but also study of the results of the various methods of treatment which have been employed in the past as well as those of to-day. About 50 per cent of all eclamptic cases develop during labor, 50 per cent during the 8th and 9th mo th of pregnancy and perhaps 15 per cent scored labor. The severity, duration and frequency of the convulsions vary depending upon the character and extent of the changes in the maternal organism. The latter occur in the brain, cord, liver and kidneys. The lesions in the brain and cord are anemia or plethora, edema and hemorrhagic crusts. The changes in the liver and kidneys are not inflammatory but degenerative in character and consist of cloudy swelling, fatty degeneration and necrosis of the secreting glandular epithelium. The convoluted tubules are affected in the kidneys, the acini in the liver. Hemorrhages may occur in the periphery of the acini, and thrombi form within the later and intra-acinous branches of the portal vein. All the changes found within the body of the eclamptic dead indicate the presence of a poison or poisons.

Eclampsia is an auto-intoxication, due to an imperfect elimination of effete elements. This means an insufficient action of some or all the excretories of the body but more especially of the kidneys and liver.

Not knowing the character of the toxins which cause the convulsions, we can only solve the question of treatment by looking for an answer in the history not of the patient but of the disease. All authorities agree that in the majority of cases eclampsia results either from renal insufficiency from acute yellow atrophy of the liver or cerebral palsy. This explains the prognosis. If kidney insufficiency is the cause the patient may recover if acute yellow atrophy of the liver or extravasation of serum or blood into the brain or spinal cord, the patient almost invariably succumbs.

The fetal mortality in eclampsia depends in large measure upon the period of gestation and the manner and time of delivery after the onset of the disease. Premature birth, version and extraction and *accouchement forcé* are frequent causes of the death of the child. Even with the new methods of treatment, especially vaginal and abdominal hysterotomy and Bland-Sillars the fetal mortality remains high—30 to 40 per cent.

A thor then points to the fallacies of emptying the uterus by surgical means as recommended by Habbertsma, Bunn, Peterson, McPherson and Davis. The treatment of eclampsia would be simple if the conclusions of these authors were correct. Peterson collected a total of 335 cases of eclampsia in 473 per cent the convulsions continued after operative treatment. In those cases where the convulsions ceased after delivery the mortality was 18.4 per cent, while in the cases where the convulsions continued the mortality numbered 18.4 per cent. The author then refers to his 30 cases treated medically only. The maternal mortality is 3.3 per cent, the fetal 46.6 per cent. Ballantyne reported 29 cases with a mortality of 17.5 per cent. Fern 0 cases with a mortality of 10 per cent. Rushmore collected 88 cases with a mortality of 20.4 per cent and Stroganoff reports 400 cases with a mortality of only 6.6 per cent. Thus the collective maternal mortality of the medical care of eclampsia of these five authors is only 10 per cent.

The result of the decapsulation of the kidneys for the relief and cure of eclampsia in 98 cases is, according to Poten, as follows: No attacks after decapsulation 43 times with 15 deaths, one to 6 attacks after decapsulation 7 times with 7 deaths 7 to 1 attacks after decapsulation 4 times with 3 deaths 1 and more attacks after decapsulation 4 times with 0 deaths indefinite number of attacks after decapsulation times with 10 deaths. In the total of 98 surgical operations the maternal mortality is 38 or 37.76 per cent. In Caesarean section there is a mortality of 7 per cent and with strictly medical treatment a maternal mortality of only 10 per cent. These figures speak for themselves and the conclusion is that surgery has contributed

little, indeed almost nothing, to the reduction of the maternal mortality from puerperal eclampsia. Assist labor but do not induce it, or treat the convulsions and let pregnancy take care of itself, is still good teaching. The author then considers the medical treatment of puerperal eclampsia which is divided into prophylactic treatment and curative treatment.

He sums up the curative treatment in the following points:

1. The hypodermic administration of 1 cc. of Norwood's tincture of veratrum viride, repeated hourly until the pulse is reduced to 60 per minute or less.

2. Copious enemata of soap-suds is given to wash out the large intestine; the bladder is catheterized; saline cathartic is administered as soon as the patient is able to swallow.

3. Hot baths or packs not oftener than twice a day.

4. Milk, broth, water.

5. Fischer's solution may be freely administered; the latter being given per rectum or if the case be an urgent one, intravenously.

6. Chloral per os or per rectum is given if the patient is restless.

7. If the patient is at the end of the first stage of labor and then only if the symptoms are grave, may forceps be employed to terminate labor.

8. If the first stage is not complete or if labor has not begun, and the patient has improved under the treatment above mentioned, the case is left to nature.

9. I cases of anemia or cachexia from any cause normal saline solution or Fischer's solution is given per rectum or intravenously.

10. In the presence of any condition, maternal or fetal, which makes the birth of the child per viam naturalem hazardous or impossible, abdominal or vaginal Caesarean section, or deep cervical incisions, each depending upon the period of gestation and other circumstances, are justifiable.

HARRY SCHMIDT.

MISCELLANEOUS

Döderlein. The Origin of Respiratory Movements in the Fetus (Zur Frage der Entstehung der Atmungsbewegungen beim menschlichen Fetus). *Lch. reuschrift* 9, 3, 1914, 9.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author gives a résumé of the literature concerning the origin of the first respiratory movements of the new-born. He describes the periodic intra-uterine respiratory movements of Ahlfeld, and thinks there is an intimate relationship between them and the regular recurring respiratory rhythms of the child after birth. The author, using the kymograph, has found that the respiration of the premature child corresponds intimately to the periodic intra-uterine respiratory movements of Ahlfeld while the respiration of the full term child resembles that of the adult more closely. The author considers the periodic intra-uterine rhythmic respiratory movements as an expression of primary automatic ability of the respiratory center and that the first extra-uterine and the following regularly recurring respirations are the end results of intra-uterine development of the respiratory apparatus. *Prüfer.*

Kawasoye. The Influence of the X Rays on the Fetal Membranes (Über die Einwirkung der Röntgenstrahlen auf die Eihäute). *Zentralbl. f. Gynäk.* 1913, 23, 178, 183.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The diversified opinions of the harmful action of X-rays on the products of gestation induced the author to determine on pregnant guinea pigs, whether pathological changes could be produced in the fetal membranes by one or two applications of X-rays, as is done for diagnostic purposes in pregnant women. The necrotic foci which are histologically found in the decidua must be considered as physiologic, because they could also be demonstrated in the control animals which had not been X-rayed. Although a characteristic change could not be found in the gestation membranes and in the uterine walls, damage to the pregnancy by the X-raying was apparent. In seven cases an abortion was observed in the uterus three times, dead fetuses once and a macerated fetus once. The harmful action of the X-rays is also apparent in the necrotic areas in the fetal liver and spleen.

HOERNER.

Aulhorn. Demonstration of Fetus with Solid Embryoma of Coccys (Demonstration eines Fetus mit Steissstenom). *München. med. Wochenschr.* 1913, 12, 667.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

A primipara, 8 years old, was in the sixth month of pregnancy. Labor began spontaneously. A tumor could be felt extending upward four inches above the navel. Traction on the head of the fetus caused a voluminous discharge of an opaque fluid. The fetus was delivered with the exception of the breech when the tumor appeared almost the size of child's head. The fetus was macerated and showed the following anomalies: At the posterior pelvic wall behind the anus and genitalia broad shreds and strands of tissue are attached which continue into the skin of the fetus. These are remnants of the ruptured capsule of the cystic portion of the tumor. It is attached to the solid portion of the tumor almost as large as a child's head. The placenta is twice as large as it should have been considering the duration of the gestation. According to the microscopic findings this tumor must be considered as an embryoma. Its unusual size is remarkable, the chief reason for the wrong diagnosis.

ROSEN.

Trinchese. The Time when Uterine Infection Occurs in the Fetus and Its Clinical Significance (Über den Zeitpunkt der intrauterinen Infektion des Fetus und dessen klinische Bedeutung). *Beitr. Geburtsh. u. Gynäk.* 9, 3, 1914, 201.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author presupposes that paternal infection does not occur and that an early infection of the fetus is hardly probable. On that account the organism must enter the fetus body in its later period, undoubtedly during the latter half of preg-

nancy. He takes the stand, and corroborates it with several observations, that lues is not a cause for abortion. According to his view there are always other causes for the abortion present, such as diseases of the endometrium and malpositions of the uterus. Neither can the death of the fetus due to lues cause an abortion, as spirochetes have never been found in them. Also in cases of premature labor the rôle of lues is important, being rare in living children and usually only in those born in the seventh month of gestation.

Two thirds of the luetic children are born during the last three months of pregnancy and most of them in the eighth month this percentage being considerably lower toward the end of gestation. Only 5.3 per cent of luetic fetuses are carried to term, most of these are born alive and show the typical signs of congenital syphilis. Fetal lues begins and ends in approximately 80 or 90 per cent of the cases during intra-uterine life, occurring in advance pregnancy as a rule. Hence 53.3 per cent of dead luetic fetuses are born between the eighth and tenth months. The child can only be saved through energetic mercury treatment of the mother success resulting then only if treatment is instituted before fetal infection occurs. Therefore, acute syphilitic treatment should be instituted in all suspicious cases as soon as the diagnosis of pregnancy is made. Even if it is begun as late as the middle of pregnancy it may yet be life-saving. BAYER.

Seldin. A Case of Delayed Meconium Expulsion (Über einen Fall von verögertem Meconium-Abgang). *Jahrb. f. Kinderheilk.*, 1913, brevill, 453.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäc.

A complete retention of meconium existed until the fifth day after birth during which time all food taken by mouth was immediately vomited, and the child lost weight rapidly. Enemata were given without result and operative interference was declined by the parents. After four days and eight hours there occurred spontaneous evacuation of a large amount of meconium, in which two glass-like mucous plugs of grayish green color were found. Immediate improvement and increase in weight followed. The meconium retention did not present the picture of a severe distention but rather that of complete obstruction. The author considers the mucous plugs the cause of the obstruction. The site of formation of the mucous plugs is considered in this case to be the cecal region. EISENACH.

Schlimpert. Experience with the Abderhalden Reaction (Erfahrungen mit der Abderhaldenschen Schwangerschaftsreaktion). *Deutsche Gesellschaft f. Gynäk., Halle*, 9. 3. May. By SONG, Gynec. & Obst.

Sera from pregnant, non-pregnant, carcinomatous, or other patients should be examined together. In doubtful cases diagnosis is only to be made when all control sera are correctly diagnosed. Uterine, ovarian, myomatous, and carcinomatous tissue was not digested by the pregnant serum in fifteen

cases. Using different animal placenta with similar and heterogeneous sera, the results were as follows. Fifty-eight cases, in which sheep placenta was used, were correctly diagnosed in all but one instance. Twelve horse sera with horse placenta gave correct diagnosis in every case. Two pregnant horses gave sera which digested horse placenta. Since the horse placenta have no chorionic villi, the deportation of villi (Veit) cannot be responsible for the blood reaction. Human pregnant serum often digests animal placenta the reverse being seldom true. J. R. MILLER.

Peters. Concerning Schottländer's Publications on the Determination of the Length of Pregnancy by Means of Histological Examination of the Placenta (Zur Publikation Schottländer's Über die Bestimmung der Schwangerschaftsdauer auf Grund histologischer Placentarbefunde und über einige praktische Verwerthbarkeit dieser Befunde). *Zentralbl. f. Gynäk.*, 9. 2. XXVII, 373.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

The presence of nucleated red blood corpuscles in the fetal blood vessels between the first and third months has long been a method of diagnosing the age of the egg. Further the presence of villi, the histology of the epithelium of the chorionic villi, together with the size of the egg would indicate whether two months had been passed since conception. From six months on histological findings of placenta are no longer a method of diagnosing the age of the fetus. Langhans cells begin to disappear from the chorionic membrane at the 5th week, from the villi at the 7th week, but do not completely disappear from the chorionic membrane for many weeks. Therefore, this is of no value in differential diagnosis. Thus there is left the period between the 15th-17th week, and Peters said it was absolutely impossible to make a definite diagnosis of this period by the examination of the placenta. Even if one could do so it would be of little value. BAYER.

Barri. Surgical Treatment of Hemorrhages of Pregnancy Labor and the Puerperium (Die chirurgische Behandlung der Schwangerschafts-, Geburts- und Nachgeburtsblutungen). *Gynäk. Rundschau*, 19. 2. VII, 163.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäc.

Barri shows by statistics how far and in which cases immediate surgical interference can replace the ordinary obstetrical methods. He cites 153 cases of abnormal implantation of the placenta and 4 cases delivered spontaneously despite profuse bleeding with no other treatment. There were ten cases of accouchement force, three delivered with forceps, without loss of mother or child. Six cases of version gave a maternal mortality of 16.66 per cent one case required craniotomy.

The author then takes up cases in which hemorrhage was treated primarily by tamponade of vagina alone or in combination with other methods, by rupture of the bag of waters, by rupture of the bag of waters and colpoclysis, and by rupture of the

bag of waters with Braxton Hicks version. The mortality in cases of rupture of the bag of waters, without vaginal tamponade, was 5.83 per cent for the mother 44 per cent for the child. The mortality in sixteen cases where the bag of waters was ruptured followed by version and extraction was 6.25 per cent for the mother and 75 per cent for the child following rupture of the bag of waters and forceps the mortality was nil. In thirty-four cases in which the bag of waters was ruptured and a metreurynter inserted the maternal mortality was 5.83 per cent fetal 38.33 per cent. Following rupture of the bag of waters with metreurynter and version the mortality of the mother was 1 per cent of the child 60.60 per cent. In one case in which the bag of waters was ruptured and metreurynter inserted extraction done by the forceps and both mother and child died. Rupture of the bag of waters with insertion of a colpurynter and amniotomy was followed by no maternal mortality. There were 1 case in which the placenta was punctured and a foot pulled out, both the mothers being saved and both babies lost. In six cases there was manual dilatation of the cervix in three cases dilatation of the cervix with Brown's dilators, version and extraction, with a maternal mortality of 0, fetal mortality of 66.66 per cent. Thus the total maternal mortality was 0.3 per cent the fetal, 5.61 per cent. These results are not satisfactory. The 4 maternal deaths were the result of infection in ten cases and four cases were due to hemorrhage.

In order to shorten labor on account of hemorrhage, one should proceed vaginally in all cases that are infected. One should operate abdominally only when there is no sign of infection or when saturation of the uterus has been determined upon. In thirteen cases of severe retro-placental hemorrhage Ba reports four deaths one due to hemorrhage two to emboli one to infection. Bar thinks that post-partum hemorrhage due to an atonic uterus seldom needs surgical intervention. Cervical tears should be repaired if this is impossible, the vagina should be tamponed. If hemorrhage continues, the patient should be laparotomized, and the injured vessels ligated. *Howe* *Tex*.

Slemons Is Albuminuria Likely to Recur in Subsequent Pregnancies? *Am J Obst & Gyn* 9 5, 1916, 249. *By Surg. Officer & Obst.*

Slemons finds that about one out of every five or six women who have a high grade albuminuria in the first pregnancy suffer from an auto-intoxication in the second. In order to distinguish between those

who may expect recurrence from those who probably will not have any trouble he believes something may be learned from careful observation of the sort of recovery which the patient makes. If the albumin is reduced to a faint trace during the first week of the puerperium it is certain that there is no permanent defect in the kidney and that the outlook for normal conditions in future pregnancies is excellent. On the other hand, measurable amount of albumin persisting for six or eight weeks offers a very gloomy prognosis even if it ultimately disappears entirely. If believes more valuable opinion may be gained from an inquiry into the blood pressure findings of these women during their convalescence. Those cases with high blood pressure high retention of normal pressure during the course of 6 weeks, he considers have had an eclamptic instead of nephritic toxemia and are unlikely to experience a recurrence.

Where the blood-pressure remains high for some time however some permanent damage to the kidney may be presumed and trouble in subsequent pregnancies anticipated. *N. S. Smith* *Ill* *Tex*.

Collo Action of Placental Extract upon the Vascular System and upon Blood Coagulation (*Atome degli estratti di placenta nel sistema circolatorio nella coagulazione del sangue*). *Gazz d'Esp e Clin Milano* 19 3, 1916, 304. *By Zentralbl f. d. ges. Gynak u. Geburtsh. u. d. Genaug.*

The author experimented upon cats with an extract made from the placenta of cats, guinea pigs, cows, and omen by crushing and extracting with physiological salt solution. His conclusions are as follows: 1. With pure or easily diluted extracts (1:1) rise the blood pressure occurs, with an increase the force of the pulse without influence of the rate. 2. With more highly diluted extracts (1:30 to 1:1000) decrease in blood pressure and pulse tension results. 3. Extract of placental previously washed with normal salt solution is more active than an extract from placenta not previously washed. 4. With pure or easily diluted blood extract blood coagulation is hastened, with highly diluted extract it is delayed. 5. With boiled extract filtered cold blood pressure is slightly raised, followed by a short period of lowered pressure. 6. The action is not constant and in human beings sometimes without action, but occasionally toxic, even in dilutions. 7. The capacity of infection is important if rapidly injected it may act fatally. 8. A tolerance is possible if the concentration be gradually increased the animal will tolerate large doses. *BRUNSWICK*

GENITO-URINARY SURGERY

KIDNEY AND URETER

Nowicki. The Relation Between the Chromaffin Substance and Adrenalin in the Suprarenal Capsules (O steunk chromafinny de adrenalinu nadrensch). *Práci lékařské* 9 3, vln 60.
By Zentralbl f d ges Chir 1 Grensgeb.

The majority of authors assume that the adrenalin is elaborated in the cells of the medulla, is stored up there and also distributed from there. This process probably occurs in the feochrome cells. The object of the investigations was to determine if the chromaffin substance bore any relation to the adrenalin content. If its absence or increase could be utilized to determine hypo- or hyper-function of the suprarenals. A decrease in the chromaffin substance was produced by a long-continued chloroform anesthesia and bilateral nephrectomy. Sections of dead animals were also used. The organ was measured, weighed put in Muller's solution and treated in the usual manner. Watery extracts were prepared with cc of solution to cc of the weight of the gland. The tests were conducted upon guinea pigs, according to the method of Liven-Trendelenburg. Each experiment was accurately recorded. The results of the experiments prove that between the quantity the grouping and pigmentation of the chromaffin substance on the one hand and the action of the extracts on the other there is definite relationship. First logically it is also possible to determine the approximate adrenalin content by the behavior of the chromaffin substance.

WERNER

Lebenhoffer. The Physiology of Kidney Innervation (Physiologische über Nerveninnervation). *Deutsche ärztl. Wochenschr.* 9 3.
By Zentralbl f d ges Chir 1 Grensgeb.

Lebenhoffer emphasizes the fact that up to this time our knowledge of the dependence of the kidney on the nervous system has not been at all exact. The previously accepted teaching has been that the work of the kidney was regulated by nervous stimuli which are transmitted to it from centers in the brain or spinal cord through the many nerve fibers which enter the hilum of the kidney with the blood vessels. This view originated and was supported by the fact that the kidney secreted nearly all stopped after section of these nerves also from the effects of stimulation of certain areas of the central nervous system and the peripheral stumps of the kidney nerves. In many experiments, the author seemed to see a contradiction to this teaching. Transplantation by autografting the vessels offered the best means for making physiological tests. The kidney

was transplanted to the pedicle of the spleen. It was then removed completely from all external nervous influence, but was kept in a normal living state. The other kidney was removed. The fact that animals with such kidneys remained alive a long time (he kept dogs under observation for nine months and one year) decided the question definitely.

By the aid of histological and physiological examination he found that the granulations of the protoplasm which is an index of the secretory activity of the kidney cells, corresponded completely to the picture in the normal kidney. Thus, there was no change on account of the severed connection with the central nervous system. With experiments on diuresis and secretion, he tried to test the activity of the tubular and vascular parts of the kidney substance. The water and salt output, and also the elimination of foreign substances, such as indigo-carmin, milk sugar and phloridzin, were entirely normal as shown by the curve. The transplanted organs were also able to withstand overloading. Hence it was shown that the kidney can carry out all its physiological functions by itself and that it is much more independent organ than hitherto believed.

Diuretics, especially, can only take place normally through the active functioning of the contractile elements of the blood vessels. This is undoubtedly caused by nervous stimulation, which must arise in the kidney itself, and can only come from the renal plexus, which has long been known to anatomists but not heretofore considered much by physiologists. The nerves entering the hilum have efferent tracts with regulatory functions, but no tracts with secretory fibers.

Abell. Renal and Urethral Calculi. *Ex. M. J.* 9 3, 12, 406.
By Surg. Gynec. & Obs.

This paper is based on the author's personal experience in 24 cases of renal and urethral calculi. Hematuria was present in 21 typical renal colic in 7 urinary frequency in 1 pyuria in 6. X-ray plates were taken in 9 cases, showing calculi in 17. The plates were negative in 3 cases where calculi were subsequently found. Spontaneous expulsion of calculi occurred in 6 cases. A careful determination of renal efficiency was made in each case. The author believes that primary stones, small enough to permit of traversing natural channels, are to be kept under X-ray observation at regular intervals until passed abundant diuretics will hasten their passage. When impacted in ureters it is often possible to dislodge them with the ureteral catheter and their expulsion may be facilitated by the injection of olive oil into the ureter. Large primary stones

should always be removed by appropriate operation even in the absence of distress their presence constitutes a menace from possible obstruction, infection, and anuria.

Henry L. Sasser.

Barkley: Subperitoneal Rupture of the Kidney with Report of Cases. *Lancet-Chc.*, 1913, 475.
By Surg. Gyrec. & Obst.

The kidney is more often ruptured than any organ below the diaphragm the uterus not excepted. The rupture is usually transverse but may be vertical, oblique stellate, or pulpified. The peritoneal cavity is often exposed when the injury is on the anterior surface and in children. Subperitoneal rupture has a higher mortality than gunshot wound of same organ. In grave but uncomplicated cases there is mortality 5 or 30 per cent. When treated expectantly by operative treatment when delayed it is much higher and when complicated and treated expectantly by the mortality is 9 per cent. In considering the prognosis the possibility of injury to other organs can not always be eliminated. The mortality in simple cases treated by pack, drain or suture is 55 per cent. the same treatment in complicated cases gives 40 per cent mortality. Nephrectomy in simple cases has mortality of about 3 per cent and in complicated cases over 4 per cent.

8 Biparietal rupture of the kidney occurs oftener than was supposed from reading modern text books on surgery. It is seen most frequently between tenth and fortieth year and on the right side. Pain, hematuria and shock while usually present may not supervene immediately upon receipt of injury and in some severe cases are entirely absent. Urinary symptoms may vary considerably and normal renal function is not restored for some time after the wound has healed. In many cases it is impossible to differentiate by clinical symptoms slight from extensive rupture. The absence of evidence of serious injury should be established before temporizing or the expectant plan of treatment is employed. In cases of doubt early exploratory incision is the logical surgical procedure. In infected cases lumbar incision and drainage or nephrectomy gives the best results. Suture of the kidney parenchyma in clean cases gives excellent results. In cases not complicated with other injury death is usually the result of shock, hemorrhage, or sepsis.

Veeckers: Dilatation and Infection of the Renal Pelvis (Über dilatation und Infektion des Nierenbeckens). *Ztschr. f. wirt. Chir., Leipzig*, 1913, 1, 2.
By Zentralbl. f. d. ges. Chir. u. Geburtsh. u. d. Gynäkol.

Under normal conditions the renal pelvis are completely emptied at each contraction of the ureters. The demonstration of retained urine in the renal pelvis under pathological conditions becomes of the greatest importance for the determination of the anatomical and functional condition of the kidney and the renal pelvis. Two things must, first of all, be distinguished—the residual urine in the renal pelvis, and the pelvic capacity. Changes in the

latter only take place gradually and require long periods of time, owing to the slight elasticity of the walls of the renal pelvis. The anatomical renal pelvis, again, must be distinguished from the "surgical," which represents the sum of the hollow system i. e. renal pelvis plus the renal calyces. The capacity of the "surgical" renal pelvis, which is normally 4-6 cc., can be determined by filling it, after previous evacuation, by means of a ureteral catheter. For a staining liquid collargol is used. The moment the pelvis is filled is indicated by the occurrence of pain in the region of the respective kidney and by the presence of collargol in the bladder.

This method of demonstrating the conditions of dilatation and retention is supplemented by pyelography (roentgenography of the kidney after filling with a 3-5 per cent solution of collargol). This shows not only the position of the kidney the size and any possible dilatation of the renal pelvis, but also reveals abscesses, cavities, kinks, curvatures and dilatations of the ureters. The collargol should be cold and free from gross particles. The respective kidney should first be completely emptied and then completely filled. The normal renal pelvis is usually empty and resists artificial filling. Pyelograms of the normal renal pelvis are therefore, indistinct and present faint outlines. Hence distinct contours in themselves as an indication of the first degree of dilatation.

The following forms of dilatation are to be distinguished: (1) Dilatation of the anatomical renal pelvis alone (2) of the anatomical renal pelvis and the calyces (3) of the renal calyces alone. The primary dilatation (pyelectasis) neoplastic and hydronephrosis is caused by mechanical obstructions to drainage by contrast the primary infection pyelogram shows no dilatations in the first stage. If the infection persists for some length of time, swelling of the mucous membranes of the renal pelvis and the ureters leads to dilatation of only the renal calyces. At a still later stage, abscesses are formed in the renal parenchyma, the so-called primary cavernous pyonephrosis or infection-pyonephrosis. From this must be distinguished the secondary or dilatation-pyonephrosis, which arises from chronic infection of an aseptically primary dilatation. An intermediate form is represented by the combined pyonephrosis, which results from a somewhat more marked aseptically primary dilatation with subsequent permanent closure. Clinically, this form is characterized by a marked septic condition pathologically by a marked dilatation of the anatomical renal pelvis and a pelvis filled with pus, by cavernous abscesses in the parenchyma. If the infection affects an already dilated renal pelvis, dilatation-pyicitis results, which is characterized by a permanent pyuria and pain as in colic. The infection of healthy renal pelvis, on the other hand, is designated as infection-pyicitis. This arises from bacteria in the urine, during the intervals between the intermittent attacks, is free of pus but contains

many bacteria. The attacks appear cyclically and frequently without material pains in the kidneys or colic, while the general condition is good.

Therapeutically in dilatation-pyelitis irrigation of the renal pelvis by instillation of silver nitrate or collargol deserves chief consideration. Since in infection-pyelitis this procedure generally produces no results, it is better to resort to vaccine therapy.

FAISSA.

G 64. Symptoms of Intestinal Occlusion in Nephritic Colic (Des symptômes d'occlusion intestinale dans la colique néphrétique). *Bull. méd.* 93, xxxvi, 107. By Journal de Chirurgie.

During a nephritic colic with frequent attacks of pain followed by intervals of complete relief, tonic and paralysis of the intestines are apt to occur. In some cases this paralysis causes only slight distention of the abdomen but in others there is marked meteorism which may persist for some time or may recur after several days. This last condition often makes it very difficult for the physician or surgeon to reach an exact diagnosis. A surgeon recently suffered from such attack.

This surgeon who was subject to renal crises had a series of attacks in which there was no nausea or vomiting and no radiation of pain along the ureters or into the testicles but severe gastro-intestinal cramps. These attacks, two in number were accompanied by complete inertia of the bowel: no gas or feces were passed for three days after the first attack and for two after the second. At first it was thought the trouble was secondary to some pleuro-phrenic affection which involved the stomach and intestines. But the persistent suppression of gas and the great distention of the abdomen caused the attending clinicians and the patient to suspect the presence of some obstruction. Operation was advised, though the typical signs of obstruction were absent and, after the painful attacks, there was no change in the facial expression.

The patient passed some gas shortly before the time set for operation, and the next day the meteorism disappeared, the abdomen relaxed and there was no more pain. The following day some sand was found in the morning specimen of urine. Urinalysis which showed many large uric acid crystals and 0.8 g parts of uric acid to the litre and a slight trace of albumin, pointed the way to the correct diagnosis. That night there was slight attack of pain lasting one half hour and in the morning stone apparently formed of uric acid and about the size of an apple seed was found in the urine. After this except for some vague passing sensations in the lumbar region there were no attacks of pain and the patient was able to take nourishment. There was no further trouble in the intestines.

Gouénu found three other unpublished cases which were analogous. Gossel, Moutier and Dreyfus saw these and thought operative intervention equally indicated.

The explanation of the intestinal symptoms is explained by the fact that the renal plexus arises from the aortico-renal ganglions which are part of the solar plexus. Reflexes traveling from the renal plexus may stimulate or paralyze the intestinal branches of the sympathetic system as well as those going to the spermatic plexus.

What is the real cause of the symptoms in such cases of apparent intestinal obstruction? According to Gouénu a careful analysis of the pain is necessary. The intensity of the pain is disproportional to the condition of the abdomen and in occlusion it is due to the contraction of the weak intestinal muscle. If renal crises the pain is the first thing noticed and it rapidly reaches its maximum intensity. The retention of gas and meteorism are not noticed till later and although the patient suffers considerably that visceral anguish which is always present in real obstruction is absent. The symptoms of abdominal inertia predominate as is shown by the absence of colic pains between the renal attacks and by the absence of noises and rumblings. Finally the palpation of the abdomen between crises in false ileus, unless there is distention is slightly or not at all painful.

In all cases of lumbo-abdominal pain, a careful urinalysis should be made searching especially for gross or microscopic uric acid and oxalate crystals. The blood should be examined for uric acid chemically.

In the treatment of such cases purgatives are not always successful. The best method seems to be to remove the causes which lead to intestinal inertia. The renal pain is controlled by subcutaneous injection of morphine in quantities sufficient to produce complete relaxation. This seems to be the most effective treatment.

J. DUBOIS.

Dienst. The Structure and Histogenesis of Congenital Kidney Neoplasms (Über den Bau und die Histogenese der angeborenen Nierengeschwülste). *Ztschr. f. path. Anat., Leipzig*, 93, 14, 41. By Zentrall. L. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

A congenital tumor of the right kidney obtained from a 30 cm. foetus born dead is the basis of this report. The tumor was the size of a hen's egg, with no normal kidney tissue remaining. The diagnosis of adenomyosarcoma was demonstrated macroscopically. The tumor belongs to the group of embryonal adenocarcinoma described by Birch-Hirschfeld. To explain the presence of muscle cells in these tumors the author accepts the hypothesis of Wilms: One must assume that at the time when differentiation of the kidney anlage from the primary mesodermal plate occurs, a few cells of the muscle anlage and sclerodermal anlage are through some unknown disturbance included with the kidney anlage, and continue their growth in a tumor-like manner and that the highly irritated embryonal kidney cells likewise continue their unchecked growth in tumor-like manner.

BLAUKE.

Spence Perirenal Hematoma. *Surg. Gynec. & Obst.* 93, xvi, 570. By Surg. Gynec. & Obst.

The author describes a case of perirenal hematoma, the only one cases of this disease having been recorded. The patient, aged 43, developed a chill followed by malaise. Several days later there was a sudden and acute pain in the right hypochondrium, followed by the appearance of a tumor in the same region. The patient developed pallor, shock, and a temperature of 101°. The urine contained small number of red blood cells, and functional tests disclosed diminution in secretory activity of the right kidney. The operation, exploratory in nature, revealed a perirenal blood effusion which infiltrated the fatty capsule, and stripped the fibrous capsule from the kidney. The outer surface of the kidney contained an irregular tear. Nephrectomy was performed, followed by recovery. The histological examination of the kidney showed chronic nephritis, the only lesion demonstrable and presumably the underlying cause of the hemorrhage.

The following conclusions may be drawn from the study of this case and those collected from the literature:

Perirenal hemorrhage is caused by a beriberi, abscess or tumor of the kidney, necrosis of the adrenal gland, traumatism and occasionally occurs in hemophilia. The spontaneous form is probably due to chronic nephritis, the only pathological lesion which has been demonstrated.

The characteristic symptoms of the disease are sudden pain, signs of internal hemorrhage, and the formation of a retroperitoneal tumor.

3. A moderate degree of hematoma is present in one third of the cases. Functional tests show diminution in the secretory activity.

4. The affection is most commonly mistaken for intestinal obstruction, paranephritic abscess.

5. The disease pursues a rapid course if unrecognized, death resulting from hemorrhage, infection, or pulmonary complications.

6. Medical treatment has been uniformly unsuccessful.

7. Ten of the sixteen cases operated upon have recovered (6 per cent). The mortality of the twenty-one cases treated by both surgical and medical measures is 55 per cent.

Furness Preliminary Report upon the Use of Indigo-carmine Intravenously as a Test of Renal Function. *Surg. Gynec. & Obst.* 93, xvi, 567. By Surg. Gynec. & Obst.

Furness advocates the use of indigo-carmin in a strength of 0.3 per cent in normal saline solution intravenously, preferring this method to the intramuscular because there is less pain, and the time of appearance in the urine is shorter and more uniform with variable time of absorption from the muscles is eliminated. He has seen no difference in the time of appearance, whether 5 or 10 cc. is used. This has ranged from 1½ to 7 minutes, 1½ to 3½ as the average. The indigo-carmin test is

made to determine the relative functional value of the kidneys after estimation of the combined value with phenolsulphonephthalein.

Joseph Acute Septic Infection of the Kidney and Its Surgical Treatment. *Urol. & Gynec. Res.* 93, xvii, 80. By Surg. Gynec. & Obst.

In this article Joseph divides 11 cases into three groups according to the localization of the focus: paranephritic abscess, pyelonephritis, pyelitis. Genuine paranephritic abscess, he says, is a relatively harmless localized form of general pyemia, the portal of entry of which may still be evident or have healed. The diagnostic features are the absolute lack of involvement of the kidney and the presence of a circumscribed area of tenderness or pressure over the kidney region. If the latter symptoms are present, together with fever otherwise not accounted for, one must not wait for other signs, such as redness or fluctuation which appear only at

late period of the evolution of the disease, but must immediately resort to exploratory incision, even if the urine is normal. This incision will be the whole treatment, if the paranephritic abscess is not complicated by kidney suppuration which, however, happens often. A case is reported.

In pyelonephritis—that is, in diffuse infection of the kidney parenchyma—the vital question is, Is there only an inflammatory infiltration, or is pus already present? In the first case, expectant treatment may suffice; in the second, prompt surgical interference is needed. Two cases are reported: one recovered without operation; the second was treated by nephrectomy three years later. Difficult secondary nephrectomy was done on account of persistent pain, and the kidney was very markedly altered. Primary nephrectomy could have been better in this case.

Pyelitis is easy to diagnose and yields to simple, non-operative treatment. **FABRICIUS E. GUNDEL.**

Lapeyre Renal Function after Decapsulation of the Kidney (La fonction rénale après décapsulation du rein). *J. de physiologie et de pathologie.* 93, x, 27-34. By Journal de Chirurgie.

Renal decapsulation, as practiced in the treatment of uremia and eclampsia, has up to the present lacked an experimental basis as a therapeutic measure. Lapeyre has studied the elimination of the decapsulated kidney as compared to the untouched kidney of the opposite side. He has studied their comparative permeability to floorescein and to potassium ferrocyanide, as well as the diuresis caused by intravenous injections of isotonic and hypertonic solutions of sodium chloride, glucose, and urea. The method employed by Lapeyre consisted in the decapsulation of one of a dog's kidneys, followed by bilateral ureterectomy. The operative procedures in themselves resulted in minimal apparent changes in the urinary secretion. Albumin and sugar were observed in 6 per cent of the sixteen cases but disappeared by the end of the first

four hours. After the injection of fluorescein and of potassium ferrocyanide Laperre found that the elimination of each of these two substances was practically the same for the decapsulated and the untouched kidney, no matter how long a period had elapsed between the decapsulation and the application of the functional test. The amounts injected were first .005 gm. of fluorescein in .cc of 9 per cent NaCl and second, .05 gm of potassium ferrocyanide in .cc of N Cl.

Likewise, after intravenous injection of isotonic solutions of sodium chloride or glucose the polyuria and the elimination of these substances were approximately equal from the two kidneys. Hypertonic solutions also yielded the same results. These experimental results show that decapsulation has at least no harmful effect on the function of the sound kidney.

The author believes that in cases of nephritis one may legitimately suppose that the decompression of the organ, by permitting of freer circulation and of the more ready formation of osmotic vascular adhesions, has a beneficial effect on renal functions.

PAGE (LAPERRÉ)

Pascual. Contribution to the Study of Calculi of the Intra-Parietal Portion of the Ureter. (Contribution à l'étude des calculs de la portion intrapariétale de l'uretère.) *J. d'Urol.* 9, 3, 447.

By Journal de Chirurgie.

Calculi of the intra-parietal portion of the ureter are relatively frequent (1 per cent Jeanbraun) the narrowing at the ureteral meatus of voiding their arrest at this point. They may produce either complete obliteration of the ureter or on the contrary cystic dilatation of its lower end or two rather characteristic lesions: prolapsus of the ureteral zone or bulbous edema of this zone.

Prolapsus of the ureteral zone or intravesical dilatation of the lower end of the ureter (which should not be confused with prolapsus of the ureteral mucosa) presents itself under the form of a conical projection into the bladder on whose rounded summit may be seen the ureteral orifice or even the calculus, engaged in this orifice. When far advanced the prolapsus may consist of an intravesical diverticulum containing numerous calculi.

Edema of the ureteral zone is usually a bulbous edema which may arrive at such considerable proportions as to simulate a real tumor.

The calculi of the intra-parietal portion yield variable symptoms. The more frequent of these are vesical resembling those of cystitis, frequency, dysuria, pain at the meatus, cloudy urine, occasionally few drops of blood. Cystitis, prostaticitis, even renal tuberculosis, are simulated. Young has observed seminal phenomena (nocturnal emissions), testicular (pain in the testicle on the corresponding side), rectal (chronic pain in the rectum, increased at the moment of defecation). Pascual, however, believes that these symptoms are more characteristic of calculi of the juxtavesical portion of the ureter.

Cystoscopy usually gives definite findings: enormous edema, usually bulbous, localized about the ureteral meatus, or prolapsus of the ureteral zone very often with the calculus itself filling in the ureteral orifice.

The presence in the anamnesis of definite renal colic without expulsion of the calculus, and with vesical symptoms, is of great value. Vaginal palpation may yield definite information: ureteral tenderness, presence of hard body. Rectal examination is less valuable because of the metastable furnished by the presence of the prostate.

Ureteral catheterization may yield proof of an obstruction, but frequently the sound passes easily alongside of the calculus and hence a negative result cannot be taken to rule out the presence of a stone. Radiography is the most valuable diagnostic method. Repeated plates and the employment of the opaque ureteral sound are often necessary. The exact diagnosis of the site of the calculus—transmural or juxtavesical—is extremely important in determining the type of operation, which is transvesical in the first case and laterovesical in the second. The existence of prolapsus or of edema, weigh in favor of an intra-parietal situation of the calculus but radiography is the more exact method of determining this point. If there is no tendency to spontaneous expulsion of the calculus its operative removal is indicated, since it leads to progressive destruction of the corresponding kidney. The perineal route is rarely indicated. The vaginal route may be utilized if the calculus is definitely perceptible through the vagina. In women the endovesical route might be selected advantageously. In many cases it would permit of either the dilatation of the ureter or of the incision of the ureteral orifice, or of the direct excision or crushing of the stone. The transvesical route is always indicated in men and in women where an attempt by the endovesical route has been unsuccessful. It allows of an easy extraction of the calculus after or without, enlargement of the ureteral orifice. J. TAYLOR.

Furness. Impacted Ureteral Calculi Released by Fulguration. *J. Am. Med. Ass.* 9, 3, 534.

By Surg., Gynec. & Obst.

The author reports the case of a woman of 49 with frequent urination pain in right loin and pus and blood in urine for three months. Eleven years ago she had a transient similar attack. A poor X-ray failed to show shadows. Cystoscopy showed a mass in region of right ureter the size of pigeon's egg surrounded by bulbous edema. The ureter was not seen.

The mass could be felt through the vagina and it was supposed to be a broad-based papilloma, probably malignant. Two applications were made with the D'Arsonval current. One week after the last cauterization a large black calculus was seen protruding through the mass. The patient refused operative treatment at that time. When seen six months later there was a history of numerous

attacks of lumbar pain. Cystoscopy showed two stones free in bladder. The right ureter appeared the size of lead pencil and the oedematous mass had entirely disappeared. The author suggests high frequency cauterization as a simple and bloodless method of releasing calculi from the lower end of the ureter when there is no bar from ureteral obstruction. About week is required for the tissue to slough. Errors of diagnosis may be avoided by means of good radiograph. F. R. O'NEIL.

Green. Infections of the Upper Urinary Tract in Infancy and Childhood. *Boston M. & S. J.* 1913, April, 645. By Surg., Gynec. & Obst.

The author gives a short review of the literature on the subject and reports six cases to further illustrate the infections of the upper urinary tract. Case 1 is that of a girl, 1 years old, who had an appendiceal abscess. Seventeen days after the operation she developed the typical signs of a kidney involvement: pain, tenderness, spasm and fulness in the right costo-vertebral angle. The diagnosis was acute secondary infection of the right kidney hematogenous in origin. The kidney capsule was laid open and drainage established. The patient recovered. Case 2 the patient was girl, 1 years old, who had an obscure general infection but was operated for appendicitis. Three days following the operation she developed temperature with no local signs of infection. Two weeks later albumin and blood appeared in the urine. There was tenderness over the left kidney. She was operated in the same manner as Case 1 and she made steady convalescence, being discharged five weeks later. Case 3 was a boy 9 years old who had a severe osteomyelitis of the ileum with metastatic epiphyseitis of the tibia. He developed metastatic nephritis. A kidney operation was performed in this case no reason being mentioned why it was omitted. The patient was treated medically and recovered. Case 4 was that of a boy 7 years old who developed an acute inflammatory nephritis and pyelitis following balanoposthitis. The early symptoms were those of an acute pyelonephritis, followed later by acute pyelitis. The child recovered completely after removal and drainage of the appendix. Case 5 was that of a boy 3 years old, who developed an empyema following pneumonia. Ten days following rib resection he developed an acute inflammatory nephritis. This cleared up in a few days under rest and medicinal treatment. Case 6 is that of a girl, 1 years old, who entered the hospital with perinephritic abscess and also some involvement of the kidney itself. The abscess was opened and the patient recovered shortly after.

The author comes to the following conclusions:
1. In infants and children infections of the upper urinary tract, though infrequent, are likely to occur without adequate apparent antecedent cause.

2. Their onset is acute, the clinical picture definite, and their recognition often missed on account of simulating other infectious conditions.

3. The two most usual forms are acute pyelitis and acute inflammatory nephritis.

4. The latter is most usually hematogenous in origin the former probably proceeds by lymphatic extension from the intestine.

5. Predisposing causes are calculi, constipation, phimosis, anal fissures, and foci of infection elsewhere.

6. The classic signs of both are pyrexia, pyuria and tenderness in the costovertebral angle.

7. Differential diagnosis depends on examination of the urine.

8. The treatment consists in rest, milk diet, aqueous diuretics, moderate cathartics, urotropin with sodium benzoate, potassium citrate or vaccine in obstinate cases surgery only as final resort.

EDWARD L. CORVILL.

Pavloff. Accessory Ureters (Über Accessorische Harnleiter). *Deutsche Zeitsch. f. Chir.* 70, 3, 1913, 415.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports six cases of double ureter. In one case the double ureters of both sides communicated with each other in the intramural part through a small opening. In five cases double ureters existed on only one side. In three cases the ureters remained separate throughout the entire course. The clinical histories present interesting characteristics which are detailed in the original article. The author was able to collect from the literature six cases of double ureter diagnosed by means of the cystoscope (Stark, Selig, Klose, Unterberg, Vennemann).

From the literature it is evident that double ureters, on account of their constant tendency to cross each other, produce a condition which predisposes to renal diseases. These diseases are dealt with by resection of the part affected or by removal of the kidney. VOIGT LACHETTER.

BLADDER, URETHRA, AND PENIS

Loumeau. Therapeutic Flaccidization of the Bladder (Sur la flaccidisation thérapeutique de la vessie). *J. de med. de Bordeaux*, 1913, 214, No. 7. By Journal de Chirurgie.

Loumeau gives his personal results in twenty-five cases in which permanent bladder fistula has been made. 7 of these had painful cystitis, acute or chronic, 5 bladder or prostatic tumor, one uretero-vesical fistula. In 7 cases the cystitis was due to tuberculous, leucoplasmia, or bichloride or cantharides poisoning. Many of these cases were immediately relieved. In 5 cases of chronic cystitis, prostatic or kidney in origin, there was no relief. A suprapubic fistula was made 9 times, a vaginal fistula 3 times and once combination of the two. In cases not reacting to this treatment there is contraction and sclerosis of the bladder.

ORANSON reports three cases of permanent fistula with brilliant results. In one case of primary tuberculous of the bladder the relief was marked.

J. ORANSON.

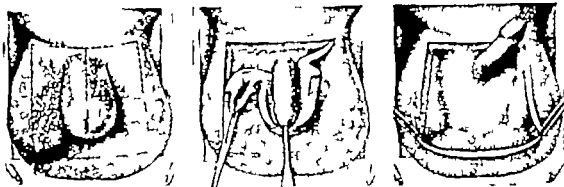


Fig. (Bonamy and Dartigues) Excision of the diseased parts

Bonamy and Dartigues Technique of External Genitoplasty in the Male (Technique opératoire de la génito-plastie masculine externe). *Presse méd.*, Par. 93, xvi, 93. By *Journal de Chirurgie*.

The authors have successfully applied the technique they describe in a case where there was elephantiasis-like condition of the whole cutaneous covering of the external genitalia which the microscope showed to be a diffuse lymphangiomatosis. Total emasculation had been advised by other surgeons.

This procedure combines excision and plastic repair. It consists of three main steps: (1) excision of the diseased parts (peno-scrotal decortication); (2) making of new scrotum with an opening for the stripped penis; (3) ensheathing of the penis by means of two lateral skin flaps.

Peno-scrotal decortication is carried out as follows: The skin incisions outline a four-sided figure. The upper incision is horizontal and crosses anteriorly the symphysis pubis above the root of the penis; the lower is parallel with, and about an inch above, the lower border of the scrotum. The lateral incisions are both vertical and unite the ends of the upper and lower cuts. An additional incision is drawn lengthwise in the dorsal midline of the penis from the middle of the upper incision to the urinary meatus. To decorticate the penis, the surgeon introduces in the urethra Hegar dilator to act as a guide; this is better than a catheter which might

let urine trickle on the operative field. With dissection forceps and knife, the right and left sides, and, finally, the under surface, of the penis are stripped of the diseased skin. To do the same to the anterior part of the scrotum, a vulsellum or bullet forceps is placed in each of the upper angles of the scrotal flap while the third holds the tip of the loosened penile flap. The left hand of the surgeon grasps these three forceps together and pulls them downward between the thighs, while an assistant draws the penis upward, out of the way in front of the pubis, and holds it there. The testicles enclosed in the fibrous layer and vaginalis are next brought out. If healthy they are left alone; if diseased, castration, on one or both sides, is performed. If hydrocele is present the vaginalis is resected.

The making of new scrotum is simply effected by bringing up the edge of the lower, pre-scrotal, incision on a level with the upper, pre-pubic, incision. Of course the new scrotum is much less roomy than the old one. The lateral ends of the scrotal and pre-pubic edges are temporarily approximated by means of two bullet forceps, while there remains in the middle gap through which passes the stripped penis. A longitudinal incision, two or two and one half inches long, is then made with a knife in the median scrotal raphe itself one and one half or two inches below the line where the two above mentioned edges will be sutured together. Through this



Fig. (Bonamy and Dartigues) Making new scrotum with an opening for stripped penis.

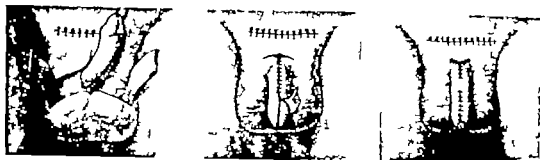


Fig. 3. (Bocamy and Dartigou.) Enobescent penis by means of two lateral skin flaps.

incision, lips of which are spread apart by the two arms of thumb forceps, which the surgeon works with his right hand, the penis is grasped with another forceps held in the left hand and brought down through the slit. It is then left hanging downward, the scrotal and prepubic edges are sutured with linen or silkworm gut.

It remains to provide a new skin sheath for the penis which hangs in front of the new scrotum in its new permanent position; this step the author styles *penile neo-regeneration*. On each side of the new root of the penis, the surgeon cuts quadrilateral flap slightly oblique outward and downward, and the hinge of which corresponds almost exactly in position with the lateral and vertical borders of the new scrotum. It is essential, however that these flaps should have an abundant blood-supply and, therefore, the limiting incisions must not come too near the upper prepubic incision. The length and width of these flaps must, in each individual case be fitted to the size of the penis, care being taken always to have abundant, rather redundant material. Insufficient flaps may lead to partial failure compel later to resort to complementary skin grafting. These flaps are drawn and folded around the corresponding half of the penis and sutured together.

When the operation is completed, there are five lines of suture viz. A longitudinal suture on the dorsum of the penis one similar on the ventral aspect of the penis, a short transversal suture just above the root of the penis, a circular suture around the urinary meatus and finally above all, the horizontal scroto-public suture above referred to. If the glands were not deeply involved and if it was possible to spare small healthy part of the forklain, new prepuce and coronary sulcus can be made.

As rather large dead spaces are left in the connective tissue, hemostasis must be very thorough, and it is best to drain in the most dependent point through special scrotal stab wound, if need be.

A retained catheter may prove necessary in some cases. In the author's case, however the patient easily voided spontaneously. Again, the operation started copious lymphatic bleeding which did away with the considerable infiltration of the connective tissue the latter before the operation, was more than an inch thick.

J. Dumeort

GENITAL ORGANS

Sochatchin. Torsion of the Testicle (Volvulus Testis). *Chirurgia* 9, 3, 1938, 52.
By Zentralf. L. d. gen. Chir. u. I. Georgob.

This is a rare affection and the literature on the subject is scanty. Bogdanffy has collected the greatest number of cases — fifty cases of volvulus testis, with three personal observations. Gruent's statistics comprise 3 cases with one personal case.

The author's case was that of fourteen-year-old patient who was admitted to the hospital in a most serious condition. He complained of vomiting and severe pains in the scrotal region, which began suddenly during defecation the day before. The left half of the scrotum was greatly swollen, the skin red and very sensitive to pressure. The temperature was 37.7.

The testicle and epididymis were covered with blackish green spots, and the veins of the plexus were thrombosed. The testicle could be easily innated, and it was seen that the vas had been twisted fully 360° from left to right.

The anatomical conditions for the development of volvulus of the testicle are to be found in an abnormal development. The pathological and anatomical investigations of Keith, et al, have shown that in a testicle in which volvulus had occurred the peritoneal fold attaching the normal testicle was either absent or abnormally long.

Nicolodini regards trauma and forced movements of the body as etiological factors. Kilinger and Winzwarter believe that the increased pressure of the abdominal wall plays a rôle or was probably the cause in the case described by the author. Therapy naturally is purely operative. See next.

Baileid. Vasostomy Radiography of the Seminal Ducts. *Surg. Gynec. & Obst.* 19, 3, 1914, 558.
By Surg. Gynec. & Obst.

Several years ago the author devised and described irrigation of vas and vesicle through vasostomy whereby the entire genital duct, from epididymis to urethra, can be medicated with any soluble solution. Experience with this procedure has shown () that many cases of gleet incurable through treatment of the urethra (because the dis-

charge proceeds from the vesicles) can be thus cured (2) that vas and vesicle may discharge their contents into the prostatic urethra not merely by ejaculation but also by normal peristaltic contraction—a function which explains some cases of mysterious pruritus, hematuria, phosphaturia, and transient albuminuria without disease of kidneys, bladder or urethra that in fact the bladder may be a reservoir for the seminal as well as urinary ducts (3) that spermia may proceed from chronic infection of the seminal vesicle by the colon bacillus as well as by the gonococcus that obstructions to the passage of spermatozoa from testis to urethra causing sterility are frequent the vas and ejaculatory duct.

More recently he has utilized cystoscopy as means of radiographing the vas and vesicle which he thus filled with collargol solution. These radiographs reveal, among other things (1) the occasional transformation of the infected end into pus sac, or pyovescicular (2) the possible obstruction of the ureter with consequent kidney symptoms by an infected vesicle—condition discovered through operation by Morgan and Young.

EDWARD L. CORSELI.

Gleason. Hypertrophy of the Prostate. Vol. 1. If J. O. J. xviii, 9. By Surg. Gynec. & Obst.

Tandler and Zuckerkandl have substantially advanced the knowledge of the anatomy and pathological pathology of the prostate by the following points:

That the anatomical capsule of the prostate is derived from, and is intimately connected with the foldings of the pelvic fascia that meet around the gland.

2. That it is impossible to enucleate the prostate out of the capsule. It can only be dissected out.

3. That the prostatic capsule of the surgeon consists of compressed prostatic tissue.

4. That hypertrophy takes place only in the central lobe.

5. That enucleation of the hypertrophied prostate occurs inside of circular layer of compressed prostatic tissue detached from the central part of the gland.

6. That this part of the gland is interwoven with the prostatic end of the urethra.

7. That malignancy of the prostate is observed from earliest childhood until old age.

The etiology of hypertrophied prostate is unknown. The author quotes Wilson and McGrath to have done extensive work along this line. These men state, "A hypothesis has yet been advanced which adequately explains the cause. Freyer after studying one thousand cases of complete enucleation states, 'I have to confess that I have still no insight into the origin of this disease.'

Conditions requiring prostatectomy are

When there are three to fifteen ounces of residual urine.

2. Extreme over-distension and dribbling.

3. Retention from time to time.

4. Ability to void some urine without use of catheter.

5. Entire dependence on catheter.

6. Complete retention and beginning infection.

Symptoms of prostatic primary symptoms are (1) Frequency of micturition, becoming more difficult and prolonged (2) The stream starts slowly and sometimes dribbles—followed by a sense of fullness, burning pain and distress. (3) These symptoms gradually become more and more pronounced and partial or absolute retention may or may not intervene.

Secondary symptoms are insomnia, loss of appetite, strength, and weight.

The proper anti-operative treatment is very essential, in regard to the proper action of the skin, kidneys and bowels. In septic cases perineal or suprapubic drainage should be established as a preliminary measure in treatment.

In the choice of an operation and the technique used one should deliberately weigh the evidence presented, and keeping in mind the element of safety choose the operation that will promise the most favorable result in the individual case. With the present knowledge of the anatomy and pathology of the prostate, the suprapubic method should be the operation of choice unless there are strong contraindications.

The author holds that the advantages to be gained are

It provides absolute control from the time the urine is first voided through the urethra.

It enables one thoroughly to explore the bladder.

3. It is less likely to be attended with painful complications (such as inflammation in epididymis or testicle, or wound of the rectum). The disadvantage is that the suprapubic wound usually requires longer time to heal. Freyer's method of complete enucleation is the one of choice.

The perineal operation should be reserved for cases presenting (1) Hard fibrous prostate (2) When the gland is situated well downward toward the perineum. (3) If condition is complicated by presence of stone (4) In fibrous or malignant cases when the gland must be dissected out. The method of Young is the one of choice.

The author concludes by saying Prostatectomy is not an operation to be attempted by an inexperienced surgeon.

H. A. MOORE.

MISCELLANEOUS

Legou Papin and Malingot. Radiographic Examination of the Urinary Tract (Exploration radiographique de l'appareil urinaire). Paris: Göttinger 9-3.

By Journal de Chirurgie

Radiography can give invaluable information regarding the anatomy of the urinary apparatus. When sufficiently delicate technique is used the shadow of the kidney is seen in three-fourths of the cases and not only the position and relations but

also the shape and size of the organ can be determined.

The renal blood vessels can be well studied by radiography after their injection with opaque material. The authors have thus demonstrated the presence of end-arteries and the venous connections in the kidney.

By injecting into the urinary tract 9 per cent collargol it is possible to obtain good pictures of the pylorus, calices, ureters and of the changes in shape of the bladder.

By simple radiography or with the aid of opaque catheters or collargol, the anomalies of shadow and disorders of the kidneys and ureters can be accounted for. There is no other method of demonstrating these things as accurately as does the radiograph. The same is the case in renal retention, to which one of the chapters in this most excellent and original work is devoted.

Search for calculi in the urinary apparatus is still the commonest cause for urinary radiology, as it is best known to the physicians at large. Now with good technique only 3 or 5 per cent of stones in the kidney or ureter are missed unless the stones are very small or the patient very stout unless the patient moves, or the stone is made of uric acid. The existence of diverse shadows often makes the absolute diagnosis of ureteral calculi very difficult to those who have not had considerable experience. The problem is generally less difficult to solve for stones and foreign bodies in the bladder.

The study of movable or tuberculous kidneys or of renal tumors is often facilitated by the X-ray as the numerous negatives show.

Finally the possibility in certain cases of studying the condition of the prostate and the caliber of the urethra completes the review of the uses of radiography in this connection. R. LACROIX-LACROIX

Marion. Significance of Hiccough Following Operation on the Urinary Tract (De la signification d'un hoquet post-opératoire chez les urinaires). *J. d'Urol.* 9 3 m, 520. By Journal de Chirurgie.

Hiccough similar to that observed in peritonitis or in certain hysterical patients, occurs not infrequently after operation on the urinary tract. It lasts for hours, may intermit for a variable time, recurs without apparent cause and so goes on, not infrequently ending in death after several days, during which time the patient has become progressively enfeebled and torpid.

Marion believes that this symptom is in the greater majority of cases a uræmic manifestation, an evidence of "Azotemia." Four patients who presented this symptom showed a coincident marked increase in the quantity of urea in the blood (3 gr. before operation, .3 during the hiccough, .83 before, 4.8 after etc.) These cases, supposedly under the influence of chloroform, or of a post-operative infection, have suffered a "touch of nephritis." The treatment of choice is, therefore, the use of non-nitrogenous diet and of sedatives, of which latter ether and valerian appear to be especially useful. J. TAYLOR.

Bachmann. Venereal Prophylaxis; Why It Sometimes Fails. *J. Am. M. Ass.* 1913, 12, 1610. By Surg. Gynec. & Obst.

The author reviews the work of Russell and Nichols of the U. S. Army to demonstrate the value of calomel ointment and other antiseptics as a prophylactic against gonorrhea. Their experiments were made in cases of acute gonorrhea. The ointment was injected into the urethra and retained fifteen minutes then washed out by irrigation after which the urethral secretion expressed from the meatus was cultured upon ascert agar and examined with Gram's stain. Two series of eight cases each were studied. In the first 5 per cent calomel with phenol and camphor in lanolin and lard was used. It proved effective in seven of the eight cases. In the second series 30 per cent calomel in lanolin and 5 per cent phenol in lanolin were used with failure in all cases.

Bachmann in nine exposures in different men and an infected woman used the navy ointment (33½ per cent calomel, 1 per cent trichlorol in benzoinated lard) and obtained negative results in all. Two control cases, who did not use the ointment, were infected. With this ointment the author then repeated Russell and Nichols' work in a series of sixteen cases each, making cultures from platinum loop scrapings in the first and from expressed secretion from the meatus in the second. Of the first series seven were positive, and nine negative, and of the second, nine were positive and seven negative. Tubes of ointment bought in the open market proved failures in all of third series of six cases.

The author calls attention to variations in the ingredients and their proportions making up the ointments and also the difference in technique of their application as causes for failures. H. G. HENRI.

SURGERY OF THE EYE AND EAR

EYE

Brown The Relation of Accessory Cavity Diseases to the Eye and the Orbit. *Olas St M J* 9 3, ix, 307 By Surg. Gynec. & Obst.

The close anatomical relationship of the eye and its appendages to the nose must be granted. The relationship of the blood supply is also close. In sinusitis the following symptoms are often noted: headache, variously located but more or less constant infra-orbital supra-orbital neuralgia, lacrimation, smarting and burning of eyes and eyelids, or acute ocular fatigue on close work. Hyperemia of the conjunctiva, orbital cellulitis, lacrimal exophthalmos, edema of lids, optic neuritis and panophthalmitis are frequently associated with sinus disease. Sixty per cent of the cases of orbital inflammation are of known nasal origin. These follow report of seven cases with orbital or ocular disease improvement and cure following treatment of the causative disease in every case. The article is illustrated by eight photographs of anatomical specimens demonstrating the relations very clearly.

In the discussion, Struck brought out the influence of internal toxemias on the nasal structures, explaining that an intestinal toxemia may cause occluding edema and that under these conditions the retained secretion becomes purulent. Woods brought out the importance of more careful nasal examination in eye conditions as spoken of above. First emphasized the importance of the X-ray sinus diagnosis. Murphy (Cincinnati) spoke of the frequent complication of sinus disease in acute infectious disease. EARLE B. FOWLER.

Lang The Influence of Chronic Sepsis upon Eye Disease. *Lancet*, Lond. 9 3, cxcv, 366 By Surg. Gynec. & Obst.

Lang has been credited as first to recognize the connection between pyorrhea and the inflammation of the iris and in this article sums up and illustrates his observations. The nature of the poison he has not determined.

Of his series, 1 hundred and fifteen were attributed to chronic sepsis, 90 hundred and sixty eight to all other recognized causes. Of two hundred and fifteen toxic cases on hundred and thirty-nine were due to pyorrhea, others to sinus inflammation, alimentary toxemia and urethritis.

Though chronic sepsis may cause inflammation in any portion of the eye the uveal tract is shown to be most frequently involved. The ten cases cited illustrate the rapid recovery that follows removal of the causative factor. EARLE B. FOWLER.

Dwyer The Use of Vaccines in Eye Infections. *Arch Ophth* 9 3, xii, 227 By Surg., Gynec. & Obst.

From his observations of 300 cases Dwyer states that vaccines, properly administered, are agents which have no equal in certain cases of eye infection.

Of twenty-seven cases of bordeola, in all of which some strain of staphylococcus as isolated and an autogenous vaccine given twenty-four have been entirely free from the attacks since the treatment. The dosage was 0.000 millio increasing to 0.000 million, given five days apart and seven or eight doses in all, two after the condition had cleared up. A general improvement in health was noted in most of the cases after the first injection. Further twelve infections with the tubercle bacillus were reported diagnosed clinically and by the tuberculin reactions. Of these five phlyctenular conjunctivitis and keratitis cleared and have not recurred. One case of iritis, three of keratitis, one of choroiditis and two of epikeratitis all responded rapidly to tuberculin injections.

The gonococcus vaccine was used in two cases of iritis with rapid clearing, and in four cases of conjunctivitis the author believes the course was much shortened by the very large doses given. A pneumococcal ulcer of the cornea responded very satisfactorily in three cases. In staphylococcal dacryocystitis (3) and conjunctivitis (3) the results were gratifying. Two cases of Morax-Axenfeld gave surprising results under toxovaccine treatment. A two-page digest of immunity and serum therapy follows. The author favors a toxovaccine as compared with stock products where practical. EARLE B. FOWLER.

Vail A Study of Some Forms of Congenital Cataract, with Special Reference to Their Clinical Significance. *Lancet-Clin*, 9 3, cxi, 131. By Surg. Gynec. & Obst.

Vail describes the embryonic development of the lens and discusses the different forms of congenital cataract, following the teachings of Collins and Mayou. In the disk-shaped or nuclear cataract he believes it is a mistake to do the needle operation. Col. Smith would extract such a cataract with fine forceps through a small corneal incision, after having made good-sized iridectomy.

In educted cases an iridectomy may be performed early and another operation done for the cataract when the lens becomes fully cataractous. In cases of cataract with considerable opacification of the lens, it is generally a mistake to consider needling, as the opacities are insoluble and are irritating when liberated. C. G. DARLINGTON.

Simpson The I tra-Capsular Operation for Cataract After the Method of Professor Stanculescu. *Opth. Rev.* 9, 2, 211, 215.
By Surg. Groves & Ober.

Simpson describes the intra-capsular operation for cataract as done by Stanculescu. The upper lid is held by the double hood retractor off from the eye. The operation is done in a dark room by electric light. The incision in the cornea is twice as large than the ordinary. An incision is made. The anterior pole of the lens is then grasped by special forceps without teeth. The closed forceps is passed sideways into the anterior chamber. The pupillary membrane is then removed perpendicularly to the surface of the lens and by slight pressure backwards made to hit the angle.

The zonular fibers are ruptured side-to-side by up-and-down movement. When the lens is loose the forceps is opened and removed. If the capsule is torn loose the operation goes on in the usual way. At the lens is loose continuous pressure is made with spoon over the cornea slightly below the center. The slight anterior pressure above the retina as the lens and capsule comes through the incision is followed by the spoon from below. C. G. DARRING.

Campbell Five Cases of Hereditary Cataract. *J. Opth. Ocul. & Laryng.* vol. 14, 3, 222, 44.
By Surg. Groves & Ober.

Campbell reports operating in cases of hereditary cataract occurring in three persons with a family history of seven or more in the same family. All developing cataract before the age of twenty years and only nine in eyes previously normal.

In the first case seen by Campbell, cataract developed at the age of eight in one eye and thirteen in the other. The brother of the case developed cataract at the age of twenty-six in both eyes. Case 3 the sister of Case 1 and had the age of twenty-five an operation for cataract on one eye. Campbell operated the other eye one and half years later. The father of these patients had been operated for cataract in both eyes of age. The father's sister and cousin also had cataract at an early age. C. G. DARRING.

Jennings The Removal of Senile Cataract Before Maturity. *Med. Record* 9, 3, 222, 97.
By Surg. Groves & Ober.

Jennings divides the removal of cataract before maturity if vision of both eyes is low.

He makes a corneal incision about junctional flap uses capsule forceps for opening the capsule and washes out the cortical matter with salt solution, using glass tip syringe introduced all down into the lenticular space. C. G. DARRING.

Meding Another View of the Extraction of the Capsular Cataract Operation. *Arch. Opth.* 9, 3, 221, 223.
By Surg. Groves & Ober.

Meding gives the reasons for the study of the India cataract operation under Col. Smith as these

The crying need for relief from immature cataract dissatisfaction with the cataract operation as using because of the capsule remnant left behind and unsatisfactory cosmetic results.

With tribute to Col. Smith, Meding tells of the operation and his experience with it. The main and apparently forbidding difficulty of the operation is the factor of pressure. The pressure necessary to express the lens in its capsule demands thinking. Fingers. A taught at Yonkers the pressure is positive, controlled and under good tuition it can be learned. A competent assistant is necessary. Results are startling. The three found that he sought and operation, clear pupils without capable men to earn their living at their usual occupation assist in the immature most difficult in the hypermature.

The field is prepared by douching with 1000 bichloride and without rubbing, squeezing or exerting.
EARLE B. FOWLER.

Strickland Contribution to the Pathology of Hemorrhagic Glaucoma. *Arch. Opth.* 9, 3, 222, 223.
By Surg. Groves & Ober.

Strickland gives detailed microscopic description of three additional cases of hemorrhagic glaucoma and furnishes further data to corroborate the findings of others namely that marked and typical changes are present in the central vessels. Although serial cross sections of the optic nerve are made, the pathological changes are impressively elucidated by the compound figures which picture axial sections of the central artery. The greatest changes are found in the intima, but not located in the region of the lamina cribrosa, here as rule they have been described. In all three cases more or less sclerosis as found in the central artery and vein. The greatest change consisted of true hydrops of the intima, which constituted the principal cause for the endothelial thickening and stress is laid on this edematous condition because acute and transitory occlusion of the vessels may result from it. The fact that the endothelium as erythrocytes furnish proof that thrombosis had not occurred. Vascular changes are also found in the choroid,iliary body and iris. These changes have led to the recognition of hemorrhagic glaucoma as separate disease from glaucoma. F. von LAVA.

Hallett Glaucomatous Tension Relieved by An Arterio Sclerotomy. *J. Opth. Ocul. & Laryng.* 9, 3, 222, 8.
By Surg. Groves & Ober.

Hallett with the idea of making an indectomy more favorable did an arterio sclerotomy with split ketotome as preliminary effort to reduce high tension in case of typical acute glaucoma. Postponing the indectomy for one week. It was found that normal tension had been restored and that the vision had improved from fingers at six feet to 20/200. After four more weeks 20/20 as recorded and the patient enabled to resume his former occupation.

The author kept the case under observation for a period of twenty-one months, and although the field was much contracted and deep glaucomatous cupping was present the vision remained the same and the glaucoma was apparently arrested.

FRANCIS LAYLE.

Third. A Case of Enlargement of the Eye-Ball *Opht. Rev.* 93, xxvii, 37.

By Surg. Gynaec. & Obst.

The patient was a boy aged eleven who had the condition since infancy. Examination revealed the following: left face and ear appeared to be little larger than the right but (taking careful measurements) all directions (i.e., slight enlargement of the left ear could be made out) the certainty. The left palpebral fissure was little larger than the right and this in spite of the fact that if anything there was slight nophthalmus. When the globes themselves were compared the difference was very evident, the left eye ball appeared much larger than the right. The corneal diameters were left vertical 3 mm. and the horizontal 4 mm. The pupillary reactions were normal but the left was larger (4 mm. diam.) than the right (3 mm. diam.) during distant object in ordinary daylight. There was no tremulousness of the iris in the left eye and when the pupil was dilated the edge of the lens could not be seen and therefore did not appear to be small in comparison with the rest of the eye. The left anterior chamber was distinctly deeper than the right. Intra-ocular tension was quite normal in both eyes. There was no evidence of stretching or thinning of the sclerotic coat in the left eye. The fundi were quite normal with not the slightest sign of any pathological cupping. The physiological cup was normally present in the left eye.

The child was myopic and as there was some ciliary spasm he was put under tropin for a few weeks. It had no effect on the tension in the left eye which remained to normal with widely dilated pupil. After nine months the conditions were unchanged. Fuchs states in his textbook that infantile glaucoma may come to a standstill, and of course, this case may be an abortive one. The author thinks it is simple hypertrophy (i.e., globe).

EARLE B. FOWLER.

Pooley and Wilkinson. Blindness of Left Eye Due to Pressure of Distended Maxillary Antrum. *Opht. Rev.* 93, xxvii, 30.

By Surg. Gynaec. & Obst.

The case reported is that of a woman 30 years of age who gave a history of left blindness coming on in twenty-four hours with no other symptoms except periodic headaches. On examining the eye there was no perception of light, pupil inactive except to light thrown in opposite eye, media clear and fundus normal. Puncture of left antrum as followed by an escape of straw-colored fluid. Operation through the canine fossa with removal of polypoid growth and an opening for permanent drainage into the

nose as done at once. Vision improved rapidly up to normal about the twelfth day.

The case is summed up as one of pressure on the optic nerve by displacement, inward of the trum from pressure of the cyst within. This is a rare condition and no report of a similar case was found by the author.

EARLE B. F. LES.

McReynolds. Some Impressions of the Oxford Ophthalmological Congress and the Ophthalmological Section of the British Medical Association at Birmingham. *Tr. St. J. Med.* 93, viii, 33.

By Surg. Gynaec. & Obst.

Three-fourths of the combined sessions was devoted to the consideration of subjects introduced by men connected with the provincial governments.

Mr. Reynolds says, considering British ophthalmology that a broader view of the field must be taken since Col. Smith has performed more than 3,000 cataract extractions and Mr. J. O. Elliott has done about 4,000 trephining operations for glaucoma.

British ophthalmologists generally are not yet ready to adopt the Smith operation, the consensus of opinion being distinctly in favor of the combined extraction whether intracapsular or not. There was strong endorsement of Mr. C. Ewen's methods of irrigating the anterior chamber and vigorous opposition to the early performance of secondary operation on the capsule.

In regard to glaucoma the general opinion prevailed that correct iridectomy was reasonably effective in acute glaucoma and that experience indicated that the methods of Elliott and Herbert presented marked advantage for the chronic types.

C. G. DARLINS.

EAR

W. H. A Case of Mastoid Abscess without Otorrhoea. *V. M. Sem. Med.* 93, xvi, 66.

By Surg. Gynaec. & Obst.

The author reports an interesting case operated on for mastoiditis in which otorrhoea was absent. The patient presented diffuse oedema over the mastoid and some tenderness on deep pressure. Otoscopic examination showed thick, red but perfectly intact drum membrane. His condition was normal otherwise except for the loss of weight.

After the mastoid was opened, the hard bone was found softened and necrotic, with pus formation in places. It extended to the mastoid pophysis, upwards including the stygomatic cells, backward to the ridge of the lateral sinus, and forward nearly to the posterior wall of the meatus. The wound healed rapidly and completely and the patient showed improvement in general.

W. L. H. II. THORNTON.

Voorhees. Serous and Suppurative Labyrinthitis: Differential Diagnosis. *Boston M. & S. J.* 93, cxviii, 76.

By Surg. Gynaec. & Obst.

Operative procedure in serous labyrinthitis results in loss of hearing whereas failure of opera-

SURGERY OF THE NOSE THROAT AND MOUTH

Lawner: Tumors in the Neighborhood of the Oesophagus Pharyngeum Tumor (Geschwulst in der Gegend des oesophagus pharyngeum Tumor) Monströse f. Oesophagus Larynx-Krebs. 93 4, 362.
By Zentralblatt f. d. ges. Chir. Grougezh.

A young physician, who since childhood frequently suffered from angina and nasal catarrh complained for 10 years of symptoms pointing to closure of the Eustachian tube. By means of posterior rhinoscopy and salpingoscopy a yellowish white tumor the size of a pea was seen on the upper surface of the right tubal opening, in part covering the tube and in part compressing it. A second small tumor was situated in the pharyngeal tonsil. The first tumor was removed through the nose by means of snare and the second was removed with the entire tonsil containing it. Both tumors were cyst lined by flat epithelium. They were probably due to epithelial inclusion and vascular degeneration, following chronic inflammatory processes. The literature of benign and malignant tumors occurring in this region is given.

KLIMASCHENKO

Ray: The Tonsil Question Again. Laryngeal Tumor. 93 4, 333.
By Surg. Gynec. & Obst.

The purpose of the paper is to insist that the operator use judgment selecting his cases, and surgical skill in carrying out the procedure. The author first takes up the essentials of the embryology, anatomy and physiology of the tonsil with its life history and the evidence in support of the belief in an internal secretion. He does not believe that the tonsils play any great part as portals of entry for infection in either rheumatism or tuberculosis.

His indications for removal are as follows: simple hypertrophy causing obstruction, cases of frequent recurring attacks of follicular tonsillitis in relapsing attacks of peritonsillar abscess, and in growths originating in the tonsil, also in some toxic conditions where the crypts are large and contain decomposing masses. He does not consider that the removal is indicated in middle ear disease nor as a cure for the enlargement of the cervical glands.

In the discussion there was little else brought out as all of the men felt much as the author did in regard to the indications. The majority were in favor of tonsillectomy in every case though small portions of the lower poles might be left to functionate.

LAURENCE B. FOWLER.

Carter: A Simple and Satisfactory Method for Removing Adenoids and Tonsils. Med. Rec. 93, LXXXV, 966.
By Surg. Gynec. & Obst.

In removal of the tonsil with the capsule the author uses a spiral tenaculum which consists of two

spiral prongs, each compassing half a circle attached to a long, slender shaft. These prongs are made only a half circle in length in order that it may be quickly and easily engaged and disengaged. With this the tenaculum is pulled toward the median line. The tonsil separator consists of a short beveled blade, curved on the flat sharp both sides and the end and is used to cut through the plica and the mucous membrane along the margin of the pillars. The tonsil is pressed out from its bed using the separator as a lever. The removal is completed with an Eve snare.

Adenoids are removed by the sweep of a Gottstein curette and the naso-pharynx wiped out by gauze wrapped around the finger.

LAURENCE B. FOWLER.

Hoppe: Laryngeal Tumor Treated with Selenol. Proc. Roy. Soc. Med. 93, VI, Laryngol. Sect., 76.
By Surg. Gynec. & Obst.

The case reported was a male 33 years old, suffering for several months with increasing dyspnea. Examination revealed the right arytenoid and enticula band replaced by large red, smooth swelling, non-mobile. Neither cord could be seen and there was practically no glottis. Diagnosis was made of swelling above malignant ulceration. There was definite thickening on the right side of the neck over the right ala of the thyroid and a small hard gland could be palpated.

Operative treatment was not devised because of the patient's general condition. Selenol (3cc.) was injected three times a week into the deep tissues near the right ala of the thyroid cartilage. Great relief was experienced after the second injection.

One month later by the direct method a large fungating mass was seen involving the right side of the epiglottis on its laryngeal surface extending down through the glottis. Two weeks later the mass had largely disappeared.

Selenol is an electrolytic colloid of the metal selenium and may be injected subcutaneously intravenously or directly into the tumor. There is absolutely no toxic effect and the growth is said to either absorb or liquefy.

LAURENCE B. FOWLER.

Lery: Laryngeal Tuberculosis. J. Am. Med. Ass. 93 LX, 38.
By Surg. Gynec. & Obst.

The author emphasizes very strongly the importance of early laryngeal examination in all cases of tuberculosis, referring to the strong way this has been brought forward in Germany. Among the earliest signs we find slight intermittent hoarseness. It is followed in many cases by unilateral hoarseness with or without slight redness and moderate swelling, usually occurring on the same side as the affected

he g. The onset of tubercle deposit is the common feature is frequently marked by early pain and shown by physical examination a circumscribed pale erythematous swelling the small grayish or yellowish pinpoint lesions distinctly beneath the mucosa and imbedded in it. Rubbing the surface of the tumor by manual examination bacteriologically often results in demonstration of the organism.

The prognosis is fair and improving. Illustration of the percentage of recovery.

1. In the treatment of the thoracic nodes.

Rest of the oalogen associated the general hygienic measures.

(a) no surgery

2. Relief of pain by injection or section of the superior laryngeal nerve.

3. The use of the bettrick. LARLA B. FOWLER

Richardson The Treatment of Laryngeal Stenosis Following Diphtheria. Boston 1913. 100 pp. B. Surg. Gynec. & Obst.

Stenosis of the larynx following attack of laryngeal diphtheria occurs in about 1 percent of the cases. It is generally the result of poor intubation technique (especially the use of the reduced mouthpiece) prolonged intubation, severe infection or secondary infection. One or more of these factors result in pathological changes consisting of thickening of the mucosa, parotitis of the muscles of the larynx, granulation or ulcerations, the formation of a cicatricial band or permanent membrane.

At the prophylaxis against these conditions the thoracic nodes the use of carefully selected tuberculin has been found to be of no value and not allowed to require special care. The treatment must consist of intubation which put the part to rest followed by dilatation of the straight retinal tube. The tubes increasing the size of the opening. These repeated intubations only few minutes at a time and repeated.

Richardson reports the best support his belief in the value of his method.

B. L. FOWLER

Higgins Apparently Non-Suppurative Nasal Disease. II. 1913. 100 pp. B. Surg. Gynec. & Obst.

This author has written original and describing frequently diagnosis of non-suppurative

nasal disease of the accessory sinuses, non-inflamed. It is characterized by a watery mucous discharge appearing especially in the morning, asthma, due to reflex irritation, cough, dry or in paroxysms, pain, varying in location with the sinus involved, dizziness, due to nasal congestion, asthenia and disturbance of the visual field. The physical signs upon which a diagnosis is based need not be pronounced.

If this is that histologists have arrived at the belief that all sinus disease must reveal itself by the appearance of pus either by drainage or demonstrated by negative pressure as applied through the agency of the lev's suction syringes. Higgins states that if the ultimate diagnosis is based upon the findings of pus in any cases all go undiagnosed and untreated. Here treatment is rightly indicated for there is nasal sinus disease without pus discharge and yet with sufficient pathology to produce polyps, granulation tissue and decreased bone as well as vascular and lymphatic stasis.

The author advocates operation in certain cases of negative findings including the newly described non-suppurative disease as well as some suppurative cases in which the usual diagnostic methods do not positively indicate pus. ELLIS J. P. TITMUS

1913 or Suspension Laryngoscopy. 11th Report of Cases. 1913. 100 pp. B. Surg. Gynec. & Obst.

The article tells of the manner in which this method as discovered by Killian exact description of the instrument and the technique of its use. Report of six largest and operative cases demonstrating its advantages.

In this method hook spatula which includes the tongue blade is suspended from the galle, thereby doing away with the necessity of holding it and permitting of direct examination of the larynx, the patient lying in the dorsal position. The patient takes no part in the procedure suffers but little discomfort can tolerate prolonged operations. The larynx and is not annoyed by saliva or blood flowing in the trachea. The operator works in an easy position, with both hands free, and has a wide field of vision of the larynx to observe and ample space for all necessary manipulation. The pathology and the surgery of the larynx can be better demonstrated to students by this method.

F. H. B. FOWLER

BIBLIOGRAPHY OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

NOTE.—The bold face figures in brackets at the right of references indicate the page of this issue on which an abstract of the article referred to may be found.

Operati Surgery and Technique

An improved method of conserving anatomical specimens. JONES. *München. med. Wchschr.* 93, 17, No. 8.

A surgical method of treating bacemias by puncture and modifying injections. GABRIEL. *Progrès méd. Par.* 93, 11, No. 9.

Aseptic and Antiseptic Surgery

Disinfection of the hands in surgery. G. ARRIOLA. *Clin. chir.* 93, 11, 33. [265]

Disinfection of the skin by thacture of iodine in children, its harmfulness. MORROW. *Arch. de méd. d. enfants, Par.* 93, 11, No. 5.

Disinfection of the skin with thacture of iodine. GALT. *Mo. Gaz. d. osp. d. clin. Milano.* 93, 11, 57. [265]

Thacture of iodine in the treatment of fresh wounds. T. G. OLIV. *J. M. et M. Am.* 93, 11, 17.

Bacemias and toilet. C. ROY. *Cor. Bl. f. schw. Arzt.* 93, 11, 405.

The germicidal efficiency of commercial preparations of hydrogen peroxid. P. G. HERNANDEZ. *J. Am. M. Ass.* 93, 11, 603.

Preparation of the patient for abdominal operations, and some points on the after-treatment. R. P. ROWLAND. *Gry's Hosp. Gaz.* 93, 11, 109.

Modern treatment of wounds and fist. W. LIPP. *Magn. Zentralbl. f. Gewerbeh.* 93, 1. [266]

Modern steam sterilization. M. ROCHER. *J. Am. M. Ass.* 93, 11, 344.

Conservation and stimulation of half-soft instruments. DEVAEY. *Zschr. f. Urol. Leipz.* 93, No. 5.

Anesthetics

The technique of anesthesia. G. E. PUTNEY. *J. Lancet.* 93, 11, 1000, 10.

Generalized sarcomas. M. von BRENN. *Neue deutsche Chirurp.* Stuttgart. Enke. 93.

General anesthesia with lessened circulation or occlusion of the four extremities in general anesthesia. DYLA. *Sanchez. Clinica med.* 93, 11, 4. [266]

Anesthesia in the surgery of the superior respiratory passages. MARTA and WACHSBERG. *Revista de chir.* 93, N. 1.

Chloroform or ether? SALVETTI. *Rivista med.* 93, 11, No. 7.

A drop method of giving ether with a closed inhaler. C. P. BULL. *Med. Rec.* 93, 11, 1111, 1118.

Intratracheal insufflation of ether. H. D. CRAWFORD. *Med. Press & Circ.* 93, 11, 145.

The blood-pressure during morphine-ether anesthesia. I. F. HOSMER. *Lancet-Clin.* 93, 11, 103.

Nitrous oxide gas, evidence of orange, ether and sequestration in general anesthesia for operations in the upright position. T. R. FREDERICK. *N. Y. M. J.* 93, 11, 100. [266]

Narcosis by means of the internal administration of bidental. SMORZIKO. *Chir. arch. Vekamova, St. Petersburg.* 93, 11, No. 2.

Narcosis by means of magnesium. SCHÜTZ. *Wien. med. Wchschr.* 93, 11, No. 9.

Local anesthesia. PRAAG. *Med. Wochblad, Amst.* 93, 11, No. 5.

The present state of local anesthesia. SCHMIDT. *Klin. therap. Wchschr. Berl.* 93, 11, N. 10.

Local anesthesia in general surgery. L. W. THOM. *J. Okla. St. M. Ass.* 93, 11, 510.

Local versus general anesthesia. R. W. KNOT. *Tex. St. J. Med.* 93, 11, 6.

Recent methods of local and general anesthesia. WITTSTEIN. *Med. Klin.* 93, 11, No. 7.

Local anesthesia in minor gynecology. S. J. WOLFE. *Mary. J. M. St. M. Ass.* 93, 11, 10.

The use of quinine and urea hydrochloride as local anesthetic in ano-rectal surgery. L. ELIOT. *Wash. M. Ann.* 93, 11, 75.

The employment of ethyl chloride narcosis in the practice of the nose, ear and throat specialist. A. FALK. *Zschr. f. Laryngol. Rhinol. u. l. Grenzgeb.* 93, 11.

Injury of the phrenic nerve in local anesthesia of the brachial plexus. A. E. STEIN. *Zentralbl. f. Chir.* 93, 11, 507. [267]

Lesions of the nerves following pleuro anesthesia. HINCHCLIFF. *Zentralbl. f. Chir.* 93, 11, No. 10.

Anatomical investigations of some cutaneous nerves, important for local anesthesia, with regard to the point at which they penetrate the fascia. F. ROSE. *Deutsche Zschr. f. Chir.* 93, 11, 455. [267]

Local anesthesia and anesthesia of nerve tracts. MINER. *Beitr. z. klin. Chir.* 93, 11, 100. [267]

Intravenous sepal anesthesia. N. BERNSTEIN. *Arch. f. klin. Chir.* 93, 11, 5.

Abolishing pain after operations with nerve block at distance. L. WATSON. *Ann. Surg., Phila.* 93, 11, 110.

Concerning sacral anesthesia. SCHLÖSSER. *Surg. Gynec. & Obst.* 93, 11, 483. [268]

Fifteen hundred hundred anesthesia. R. DAX. *Beitr. z. klin. Chir.* 93, 11, 111, 112.

Spinal anesthesia in gynecology. G. GILLMORE. *J. Mo. St. M. Ass.* 93, 11, 337.

Spinal anesthesia by injection of stychocostovaline. JOH. TROTT. *Revista de chir.* 93, 11, No.

Anesthesia by means of novocaine technique and results. LEPOUTRE. J. d. sc. méd. de Lille, 9 3, xxvii, No. 20.

Oxygen-impregnated water combined with cocaine or novocaine (Alarconet's method) for the extraction of teeth. MAUREL and VAREL. Presse méd. Par. 9 3, xii, 389.

Review of literature concerning alyssa. SCHMIDT. Wittenberg. Abhandl. u. d. Ges.-Geb. d. prakt. Med., 19 3, xxi, Suppl., [266].

Pharyngitis in pulmonary oedema and in asphyxia. CHAS. WITZNER. Schweiz. Rundschau f. Med., 9 3, xii, 612.

Surgical Instruments and Apparatus

New ether pad and cone. E. M. JONES. J. Am. M. Ass., 9 3, ix, 16 2.

Compressive dressings. DUPUY and FRANKLIN. Chirurges, Par., 9 3, vii, No. 1.

Catgut. Silver nitrate catgut and iodine catgut. DESPOT. J. de pharmac. et de chim., Par. 9 3, cv, 431.

A new tomoflector. J. E. JENNINGS. J. Am. M. Ass., 9 3, ix, 1630.

A plaster of Paris splint. M. D. TOUANT. J. Am. M. Ass., 9 3, ix, 680.

Acetabulum gauges and bone rasp, for plastic bone work. R. O. MICHAELSON. Am. J. Orth. Surg. 9 3, x, 645.

The short spica in the treatment of hip-joint disease. C. R. KIPPUR. J. M. Soc. N. J. 9 3, ix, 509.

A traction spreader device to prevent plantar flexion of the foot. N. ALLEN. Am. J. Orth. Surg. 1913, x, 140.

A universal douche attachment. LEWIS. Zinder L. Urol., Leipzig, 19 3, vi, No. 5.

An abdominal-nasal support. D. G. E. AAR. Am. J. Orth. Surg. 9 3, x, 604.

Sheaf for rectal and vaginal operations. H. F. GRUBER. J. Am. M. Ass., 9 3, ix, 537.

An apparatus to be used in the application of plaster jackets, and for the photographic record of scrofers. A. O'NEILL. Am. J. Orth. Surg., 9 3, x, 36.

A new scoliosometer. J. K. YOUNG. Am. J. Orth. Surg. 9 3, x, 450.

An instrument for the rotation treatment of scoliosis. H. E. MACDONALD. Am. J. Orth. Surg., 9 3, x, 415.

New apparatus for the measurement of arterial blood pressure in man. H. von RECHENBACH. Münch. med. Wochenschr. 9 3, ix, 87.

Measuring instruments and measurements in roentgenology. T. CHAMBERLAIN. Fortsch. u. d. Geb. d. Röntgenstr., 9 3, ix, 82.

Presentation of model of new electrode for intraventricular application after Flatau's method. A. LAURENCE. J. de radiol. 9 3, ix, 37.

SURGERY OF THE HEAD AND NECK

Head

Primary cancer of the scalp, with metastases. GOSWORTHY and VANLINT. Revista de chir., 1913, 1, No. 1.

An extensive growth starting as papilloma on lower lip. Ligation of external carotid as palliative measure for inoperable growths. E. DUKLAR. Tex. St. J. Med. 9 3, ix, 9.

Successful treatment of carcinomata of the face by simple puncture infiltration of keratin oxydoloids. STENZ. Zschr. f. Krebsforsch., Berl. 19 3, xii, No. 2.

Hyperplastic oedema of the face. G. NOEL. Wien. med. Wochenschr. 9 3, lxvi, 70.

Facial hemiparesis of traumatic origin. TITMUS. Bull. et mem. Soc. de chir. de Par. 19 3, xxxix, 501.

The myoplastic method in the treatment of facial paralysis. GOSWORTHY. Lyon chir. 9 3, ix, No. 5.

The treatment of trigeminal neuralgia by superficial injection of caustic acid and alcohol. T. C. H. ALLEN. J. Mich. St. M. Soc., 9 3, xii, 601.

A new method of treating neuralgia of the trigeminal by the injection of alcohol into the gasserian ganglion. J. GEDDIS. J. Am. M. Ass., 9 3, ix, 154.

The treatment of severe forms of neuralgia of the trigeminal nerve by injection of alcohol into the gasserian ganglion. A. LOEWY. Berl. klin. Wochenschr., 9 3, l, 724.

Anaesthesia of the mental nerve by freezing. NICHOLSON-KROGGER. Wien. klin. Wochenschr. 9 3, xvi, N. 7.

A series of cases of parotid tumor. A. STRICK. Berl. M. J. 9 3, l, 1047.

The problem of Mikulicz's disease and its treatment. FACHOWITZ. Zentralbl. f. d. Grenzgeb. d. Med. u. Chir. 9 3, xvi, Nos. 5-6.

Mikulicz's disease in its relations to leucemia and pseudo-leucemia. A. CARROTT. Riferenza med. 9 3, xii, 449.

On the question of mixed tumors of the salivary glands. A. TCHERAKA. Arb. d. chir. Klin. d. Prof. S. Fedoroff. St. Petersburg. 9 3, l.

Malignant neoplasms of the salivary glands. J. G. SARRAZIN. Internat. J. Surg., 9 3, xxvi, 57.

Primary epithelioma of the submaxillary glands. TOMMEX and GOSWORTHY. Bull. et mem. Soc. anat. de Par., 9 3, xv, 6.

Free plastic transplantation of fat after radical operation on the frontal sinus because of empyema. J. GILBERT. Vrach. Gaz., St. Petersburg. 9 3, ix, 501.

Partial operation for carcinoma involving the jaws, with reports of three cases. W. T. COGGIN. Internat. M. J., 9 3, ix, 43.

Fibroma of the maxilla. L. S. KETTERWELL. Proc. Roy. Soc. Med. 9 3, vi, Odontol. Sect., 33.

The extensive operation for malignant tumors of the upper maxillary bone. KURVE. Deutsche med. Wochenschr. 19 3, xvi, No. 20.

Head injuries, clinical report. A. M. V. WEL. Am. J. Surg. 9 3, xxvii, 9.

Basal fracture. J. M. WATKIN. Calif. Med. M. J. 9 3, vi, 60.

Septa in the lateral sinus. B. OVERSTADT. Arch. internat. de laryngol. d'otol. et de rhinol. Par., 9 3, xxv, N. 2.

Abscess of the retropterosal bone. DE CHENAI. Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx, Par. 19 3, xxxix, No. 4.

Subdural intracranial cyst of traumatic origin, Jacksonian epilepsy, ameliorative trepanation. JULIANS. Bull. et mem. Soc. de chir. de Par., 9 3, xxxix, 334.

The treatment of epilepsy. P. HARTMANN. J. de méd. de Par. 9 3, xxxix, 343.

The surgical treatment of epilepsy. K. OLA. Wien. klin. Rundschau, 9 3, xxv, No. 7.

Severe meningitis. BUNDMANN and KRUGER. Med. Klinik, Leipzig, 9 3, xvi, No. 20.

The value of Mikulicz's connective tissue stain for the demonstration of variation in the Reid coagulum. J. P. JONES. J. Exp. M. 9 3, xvi, 347.

- A case of diffuse sarcomatosis of the pia mater. OTTO MARCUS. Arch. f. Psychiat. Berl., 9 3, II, 32.
- The technique of biopsies in the cerebral sinuses. W. MEYER. Zentralbl. f. Chir., 913, 21, 68.
- A case of ruptured aneurysm of cerebral artery caused by trauma. OSCAR OTTE. München. med. Wchnsch., 9 3, 12, 932.
- The origin, circulation and function of the cerebro-spinal fluid. V. KAFKA. Zschr. f. d. ges. Neurol. Psychiat. 9 3, 24, 482.
- Experimental investigations on the direction of the flow of the cerebro-spinal fluid. H. ALEXANDER. Zschr. f. d. ges. Neurol. Psychiat., 9 3, 24, 578.
- The chemistry of the brain. A. WIEL. Zschr. f. d. ges. Neurol. u. Psychiat. 9 3, 24.
- Graphic investigations on cerebral poles. U. LOWE. Note. Riv. di psichiat., 9 3, 24, 45.
- Stab wound in the left temporal region of the brain. A. KASCHUBA. Wien. med. Wchnsch., 9 3, 12, 269. [276]
- Diagnosis and surgical treatment of brain diseases. BYCOWSKI. Med. kron. lek., Warszawa, 10 3, 24, 101, N 2.
- A case of heterotopic chorio-epithelioma in the brain and the lungs. EICHENBERG. Zschr. f. Krebsforsch. 9 3, 24, No. 2.
- Unusually differentiated microscopic carcinoma of the brain. PACHAURTON. Rev. méd. de la Suisse Rom., Genève, 9 3, 24, No. 5.
- Cystic changes of cerebral glioma. BIZZI. Arch. de méd. exp. et d. anat. path. Par. 9 3, 24, No. 3.
- Voluminous glioma of the frontal lobe. BIZZI and GARDNER. Lyon chir. 9 3, 12, 5.
- A case of "idiopathic" cerebral abscess. J. HANSEN. Scot. Lancet, Lond. 9 3, 24, 55.
- Traumatic abscess of the brain, caused by the penetration of the skull by foreign body. DUMASCOU. Spital., 9 3, 24, No. 4.
- Brain surgery. Von EISENBERG. Deutscher chir. Kong., 9 3. [279]
- Brain surgery. F. K. v. Deutscher chir. Kong. 9 3. [278]
- Experiments with view to combating paralysis of respiration in operations on the brain by means of Meisner's identification. URSINA. Arch. f. klin. Chir. 9 3, 3, No. 1.
- Clinical symptoms of cerebellar lesions and experimental data. E. POISSON. Riv. crit. di clin. med. 9 3, 24, 57.
- Cerebellar tumor glioma operation recovery. M. MAILLON and W. F. V. J. Nerv. u. Ment. Dis. 9 3, 24, No. 5.
- Tumors of the cerebello-pontine angle. A. W. LUKER. Cleveland M. J. 9 3, 24, 325.
- Changes in the hypophysis in acromegaly. PODANEC. W. med. Wchnsch., 9 3, 24, No. 9.
- Genital and thyrogonadal hypophyseal adipsity. BRIDLE. Cas. lek. čes., Prague, 9 3, 24, No. 6.
- Carcinoma of hyperplastic hypophysis. J. FOUK. N. Y. M. J. 9 3, 24, 976.
- Classification of tumors of the pituitary body. G. V. BORTH. Brit. M. J. 9 3, 24, 924.
- Report of two cases with tumors, originating from the region of the pituitary body. I. PRITZ. W. M. J. 9 3, 24, 30.
- Genesis of the pituitary body acromegalic symptoms. URSINA. Arch. internat. de laryngol. d'otol. et de rhinol., Par. 10 3, 24, No. 1.
- The histological structure of the pineal gland. I. K. WALTER. Stenograph. u. Abhandl. d. naturforsch. Gesellsch. zu Rostock, 913. N. P. [271]
- The functions of the pineal gland, with report of feeding experiments. C. L. DANA and W. N. BERNLEY. Med. Rec., 9 3, 12, 525.
- Pathology and operability of tumors of the pineal gland. ROUSCHACH. Beitr. z. klin. Chir., 913, 12, 457. [272]
- ### Neck
- Clinical study of deep suppuration on the neck. F. F. PRASNO. Gazz. d. osp. d. clin. Milano, 9 3, 24, 203.
- Treatment of cervical cellulitis. F. T. BROOKS. Med. World, 9 3, 24, 90.
- Tuberculosis of the lymph glands of the neck and its relation to the tonsils and the lung. G. TRAUBMAN. München. med. Wchnsch., 9 3, 12, 866. [272]
- A case of hyomandibular fistula. H. KÖTTNER. Dtsch. med. Wchnsch., 9 3, 24, 459.
- A case of symmetrical cervical adenoeponitis. MILLWOOD. Gazz. d. osp. d. clin. Milano, 9 3, 24, No. 58.
- Spasmodic torticollis: notes on the etiology in two cases. W. F. SCHALLER. J. Am. M. Ass., 9 3, 12, 1421.
- On the question of the existence of an ossified arch of the hyoid bone in man. A. A. DISCHER. Chirurgie, St. Petersburg, 913, 24, 283.
- The evolution of the thyroid gland. D. MARINE. Bull. Johns Hopkins Hosp., 9 3, 24, 35. [274]
- The relationship of the thyroid gland to alimentary toxicosis. F. LAURENCE. Lancet, Lond., 9 3, 24, 370.
- The thyroid function in its relation to some morbid conditions. DONOHOE. Clin. chir. Milano, 9 3, 24, No. 4.
- Pathological-anatomical changes in the diseased thyroid gland. TOMASKIEWICZ. Russk. Vrach, St. Petersburg, 9 3, 24, 200.
- Acute non-suppurative thyroiditis. W. LUBMANN. Berl. klin. Wchnsch., 9 3, 24, 524.
- Symphysis of the thyroid, its histological analogies with tuberculosis. F. VIE and SAVY. Lyon chir. 9 3, 24, 511. [274]
- Echinococcus cysts of the thyroid gland. GASTL. Clin. chir. Milano, 9 3, 24, No. 4.
- Malignant tumors of the thyroid gland. A. W. BLAIR. Internat. J. Surg., 9 3, 24, 66.
- Our present conception of hyperthyroidism. W. H. LORRAINE. Long Island M. J. 9 3, 24, 8.
- The effect of experimental hyperthyroidism upon the calcium content of the blood. SAITOMAR and ROCHER. Compt. rend. heb. Soc. Biol., Par. 9 3, 24, 507.
- The relations between endemic goiter and radioactivity. E. HENNE. Deutsche Arch. f. klin. Med., 9 3, 24, 324.
- Organolytic ferments in the serum in endemic goiter. J. B. UER. Wien. klin. Wchnsch., 9 3, 24, 600.
- Exophthalmic goiter and its varieties, diagnosis, grave, and acute, prognosis and treatment. DEPERRE. Rev. Internat. de med. et de chir. prat. Par. 9 3, 24, 93.
- Cases of exophthalmic goiter cured by X-ray. S. TOCHER. Med. Rec., 913, 12, 849.
- Ligation in hyperthyroidism. G. M. TOWN. Am. J. Surg., 9 3, 24, 76.
- Bilateral resection or unilateral extirpation of the thyroid preferable? A. THIER. Berl. klin. Wchnsch., 9 3, 24, 90.
- Basedow's disease. GONNET and LAUTHIER. Prov. med. 9 3, 24, No. 1.
- The frequent occurrence of light cases of Basedow's disease and the favorable effect upon them of hygienic and climatic factors. KUTZ. Med. Klin. 9 3, 24, No. 1.
- Pathogenesis of Basedow's disease and its treatment by Verneil's fluid thyroidin. MARCHELLI. Riforma med. 9 3, 24, No. 9.

A case of infantile Basedow disease. K. HOOVERMAN. *Mitt. d. Gesellschaft f. inn. Med. u. Kinderh. zu Wien* 9 3, xlv, 350.

The mental condition in Basedow disease. MANDAROT and CAZARINUS. *Monipeller med. Par.* 9 3, xxvii, Nos. 9-20.

Attempts to influence Basedow disease by means of X-ray treatment of the ovaries. MANDAROT. *Monipeller med. Par.* 9 3, xxvii, No. 8.

Deep Roentgenology in Basedow disease and in myxoedema. MANDAROT and WICHNER. 9 3, 37, 66.

SURGERY OF THE CHEST

Chest Wall and Breast

Tumors of the breast. D. C. BROCKMAN. *Ann. N. Y. Acad. Sci.* 9 3, xlv, 350.

Small mammary neoplasms. R. T. MORRIS. *Internat. J. Surg.* 9 3, xxvi, 55.

Primary epithelioma of the nipple in a girl aged eleven. BATTIL and M. VIVRY. *Lancet, Lond.* 9 3, clxxxv.

Carcinoma of the mamma. S. D. S. ORT. *N. Mex. M. J.* 9 3, x, 55.

Carcinoma of the mammary gland. KROVCHENKO. *Moscow med. Wchnsch.* 9 3, lx, 70.

Cancer of the mammary gland. JABOTY. *Rev. internat. de mèd. et de chir.* Par. 9 3, xlv.

Isthmoma of the breast in an infant. SLOVET. *Radiol. Soc. Lond.* 19 3, xxi, No. 20.

Tumors of the mammary gland in men. I. MICHON. *Com. Biol. f. mèd. exp. et chir.* 9 3, xlvii, 55.

Paget disease of the breast. *Chir. arch. Velandshoven, St. Petersburg.* 9 3, xxi, No. 6.

Paget disease of the nipple. HILF. *Med. Wchnsch. (Wien)* 9 3, x, 6.

Paget disease of the nipple. GARMSTADT. *Verh. Tysch. (Wien)* 9 3, No. 9.

Ductectomia (removal of ducts of the breast). MORRIS. *Gas. d. Hosp. Par.* 9 3, xxvii, No. 93.

Surgical neoplasms of the breast. E. D. MARTIN. *Switzerland M. J.* 9 3, vi, 37.

Extirpation of the mamma. W. B. ZENTHAL. *Chir. 19 3, xlv, 1.*

Enchondroma of the mammary gland successfully removed by operation. W. B. ZENTHAL. *Bre. M. J.* 9 3, xlv, 1.

Enchondroma of the scapula. W. D. MURPHY. *N. Y. M. J.* 9 3, xlv, 1.

Osteosarcoma of the shoulder-blade. G. ACCO. *Chir. Milano* 9 3, vi, 4.

Penetrating combined thoracic and abdominal wounds. GUTER. *Deutscher chir. Kong.* 19 3, [274].

Case of congenital thoracic deformity. GROSSMANN and DORT. *Proc. Roy. Soc. Med.* 9 3, vi, Sect. Dis. Children, 11.

A case of the chest compressed by injury of the internal mammary artery. DAVOUTIS and LUCIOT. *Lyon mèd.* Par. 9 3, xlv, No. 19.

On the question of artificial pneumothorax. L. HOFFMANN. *Ztsch. f. physikal. diätet. Therap.* 9 3, xvi, 163.

The practical value of the indications and contraindications for artificial pneumothorax in the treatment of pulmonary tuberculosis. BIRMAN. *Rev. mèd. de la Suisse Rom.* Genève, 9 3, xxvii, No. 4.

Follicular secondary pneumothorax. LUBSKOFF. *Gas. d. Hosp. Par.* 9 3, xxvii, No. 93.

Malignant primary cancer of the pleura. LEROUX, SARTY and BLANCH. *Arch. de mèd. exp. et d'anal. Path.* Par. 9 3, xlv, No. 1.

A abnormal vein in the mediastinal region. DELATY. *J. d. ac. mèd. de Lille*, 9 3, xxvii, No. 18.

False diagnosis of crop in children affected with tubercles of the bronchial glands and of the body of the vertebrae. M. MICHON. *Rad. Soc. Lond.* 19 3, xxi, No. 20.

Lesions of the thoracic gland tubercles in children. J. C. MOTT. *N. Y. M. J.* 9 3, vi, 37.

The thymus and the other ductless glands. E. PACE. *Cleveland M. J.* 9 3, xii, 130. [274]

About thymus and the combination of thymus-hyperplasia with Basedow's disease. A. LIEBOWITZ. *Ohio St. M. J.* 9 3, vi, 30.

Polynuclear leucocytosis in the thymus gland following X-ray treatment. RIGAUD and CHENET. *Compt. rend. Soc. de mèd. Par.* 9 3, lxxxv, 863.

Report of the cases of enlarged thymus. H. A. HILL. *Lond. M. J.* 9 3, xii, 357.

Roentgen treatment of thymus hypertrophy. C. W. WILSON. *Cleveland M. J.* 9 3, xii, 31. [275]

Trachea and Lungs

A new method for radiographic representation of the larynx and the trachea. A. RITZ. *Ztsch. f. Laryngol. Rhinol.* Göttingen 9 3, vi, 1.

Clinical contributions on the etiology and symptomatology of intratracheal stenosis. G. COHN. *Ztsch. f. Laryngol.* Göttingen 9 3, vi, 15.

Operations for tracheal stenosis. BROOKHUIS. *Ann. Soc. belge de Chir.* 9 3, xxv, 38. [276]

The surgical treatment of bronchiectasis. BATTMANN. *Zentralbl. f. d. Gesamte d. Med. Chir.* 9 3, xvi, Nos. 5-6.

1 tumor to lungs and pleura, with report of case. P. Z. M. DONALD. *Bloom. M. J.* 9 3, xiii, 497.

Operative or conservative treatment of injuries of the lung by pointed instruments. E. KIRCH. *Wien. klin. Wchnsch.* 9 3, xxvii, 727.

Excision of the lung and its treatment. G. TIEBER. *Deutsche med. Wchnsch.* 9 3, xxvii, 77.

Classification of the lung. Ch. LA. Riv. esp., Roma, 9 3, vi, No. 3.

Primary carcinoma of the lung. M. S. GOSSELINK. *Arch. Gen. u. Pet.* 19 3, xii, 377.

The so-called "benign" pulmonary cancer. ANASTAS. *Wien. klin. Wchnsch.* 9 3, xxvii, 727.

Generalized carcinoma of the lung. RICHARD and CARL. *Arch. de mèd. exp. et d'anal. Path.* Par. 9 3, xlv, No. 3.

The operative treatment of lung tuberculosis. SCHWABER. *Deutscher chir. Kong.* 19 3, [276].

A pulmonary abscess which developed long time after typhoid. ORLANDO. *Riforma mèd.* 9 3, xlv, No. 20.

A case of Wilms operation for tubercular pulmonary tuberculosis. L. M. YER and N. GOSSELINK. *J. mèd. de Bruxelles*, 9 3, xviii, 40.

Empyema. FLEISCH. *Deutsche med. Wchnsch.* 19 3, xlv, No. 19.

- A contribution on Freund emphysema operation. JENSEN. München. med. Wchnschr. 93, ix, No. 9.
Effect of extensive resection of the thoracic wall on marked pulmonary emphysema. FALKENBERG. Deutsche Chir. Kong. 93 [276]
Experiences in surgery on the superior respiratory and diaphragm tracts. GLOCK. Berl. klin. Wchnschr. 93, ix, No. 9.

Heart and Vascular System

- Further experience of the cardiac sign in cancer. W. GOMBOZ. Brit. M. J. 93, i, 52.
The surgery of the heart and the pericardium. JAS. KAZ. Universal M. Rev. 93, 10, 10.
Sequel of cure of carbolic acid. R. SIKOV. B. M. J. 93, i, 990.
The question of cardiac arrest. A. DROZDOV. Med. Rundschau. 93, ix, 430.

Pharynx and Oesophagus

- Diagnosis and treatment of foreign bodies in the oesophagus. A. J. KAZ. Ingeborg Chir. Orthop. 93, 35.
Foreign bodies in the oesophagus. P. LA. JURY. Ann. Soc. med. chir. de Liège. 93, li, 50.
Foreign body in the oesophagus removed by oesophagoscopy. Foreign body in bronchial tract. H. DUMER. New Orleans M. & S. J. 93, ix, 85.
Oesophago-bronchial fistula, with recurrent paralysis caused by foreign body in the oesophagus. M. KOSKOV. Monatschr. f. Ohrenheilk. Laryngo-Rhinol. Berl. 93, xiv, 5.
Specimen of the superior extremity of the oesophagus. RABALA. Arch. internat. de laryngol. d'otol. et de rhinol. Par. 93, xiv, 1.

The treatment of cicatricial stenoses of the oesophagus, with special consideration of internal oesophagotomy. H. MANNICH. Monatschr. f. Ohrenheilk. u. Laryngo-Rhinol. Berl. 93, xiv, 179.

Treatment and diagnosis of cicatricial stenoses of the oesophagus. GUINZ. Arch. internat. de laryngol. d'otol. et de rhinol. Par. 93, xiv, No. 1.

Chronic inflammatory stenosis of the cardiac region of the oesophagus. LUDWIG. Inaugural theses. Par. 93, [276]

Cancer of oesophagus from the point of view of thoracic surgery. W. MAYER. Arch. f. klin. Chir. 93, c, 716.

The surgical treatment of cancer of the oesophagus. W. MAYER. Med. Rec., 93, ix, 833. [276]

The first successful resection of the thoracic portion of the oesophagus for carcinoma. preliminary report. F. TOLLE. J. Am. M. Assn. 93, ix, 333.

Further contributions on surgery of the oesophagus. RUDY. Zentralbl. f. Chir. 93, xl, 553.

Plastic surgery of the oesophagus from the gastric wall. E. PRITZNER. Zentralbl. f. Chir. 93, xl, 664.

Miscellaneous

Röntgen diagnosis of intra-thoracic lesions. A. L. GRA. Southern M. J. 93, vi, 295.

Some remarks on the diagnosis of primary intrathoracic malignant disease. W. H. M. TELLING. Clin. J. 93, xli, 61.

Endoscopic diagnosis and treatment of endothoracic tumors. A. EMMERICH. Berl. klin. Wchnschr. 93, i, 683.

Thoracic surgery and the procedure of producing difference in pressure (hypo- and hyperpressure). STEINMANN. Rev. suisse de méd. 93, No. 7.

Intercostal anastomoses of the chest by fire-arms. J. P. TOUREVICH. Bull. méd. Par. 93, xiv, 414.

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

An oblique transverse incision for operations on the gall-bladder and bile ducts. MARR. Union méd. d. Canada. Montreal. 93, xli, 7. [277]

Experimental data on the question of abdominal drainage. PATON. Chir. arch. Velammova, St. Petersburg. 93, xiv, No. 1.

A cystic tumor of the abdominal wall. H. W. LEE. Prag. med. Wchnschr. 93, xxxviii, 205.

Acute suppurative lymphadenitis, abdominal, due to diplostreptococcus uteris. O. W. H. MITCHELL. Am. J. M. Sc. 93, civ, 7.

The surgical treatment of pendulous abdomen. J. McKINNEY. Canad. M. Assn. J. 93, iii, 335.

The subject of peritonitis. ENDELLER. Beitr. klin. Chir. 93, lxviii, 593. [277]

Should we operate during the intermediate stage of acute peritonitis? BRUNNEN. Deutsche Zschr. f. Chir. 93, cxvii, 53.

New methods in the treatment of acute peritonitis. P. A. A. GARY. Arch. de méd. et de pharm. mil. Par. 93, ix, 59.

Biliary peritonitis without perforation of the gall-bladder or the bile ducts. JOH. VASSO. Hygiea, Stockholm. 93, lxxv, No. 4.

Diffuse pneumococcal peritonitis of hematogenous origin. SASSOLI. Rev. esp. Roma. 19, 3, li, No. 9.

A case of peritonitis caused by enormous perforation. URSCH. and BACKE. Spitalh. Bucuresti. 93, xxvii, N. 4.

A case of fatal peritonitis following dilatation by laminaria. HOFER. München. med. Wchnschr. 93, ix, N. 7.

A case of tuberculous peritonitis in child. W. A. STROOP. Physician & Surg. 93, xvi, 3.

Tuberculous peritonitis, operated twice, with subsequent normal pregnancy. DELANNO. Rev. prat. d'obst. et de gynéc. Par. 93, xvi, 0.

The anastomotic form of tuberculous peritonitis. ARMA. D. DILLIE. Presse méd. Par. 93, xvi, N. 40.

Direct treatment of tuberculous peritonitis by means of iodine preparations. FALKNER. München. med. Wchnschr. 93, ix, No. 8.

The treatment of peritonitis by camphorated oil. HUERT. Beitr. z. klin. Chir. 93, lxxviii, 606.

Diagnosis and treatment of ascites. ARRELY. Bull. gén. de thérap. méd. chir. obst. et pharm. Par. 93, civ, 33.

Plastic repair of defects of the diaphragm by means of fascia lata. KOSKOVICH and SKRIBNICKY. Zentralbl. f. Chir. 93, xl, 76.

The technique of removing the lymphatics of the inguinal region. CONSTANTIN. Progrès méd. Par. 93, xli, No. 8.

Hernias. SCHLOFFER. Med. Klin. 93, ix, 45.

- Congenital hernia of the diaphragm. II. RINGENBERG. *Anatomia*. M. Gaz., 9, 2, xviii, 350.
- Congenital diaphragmatic hernia in child three years old. RIESER. *Jahrb. f. Kinderh.*, 9, 2, xvi, No. 5.
- Umbilical hernia. C. D. WATKINS. *Hosp. Bull. Univ. Md.*, 9, 2, 46.
- Epigastric hernia and digestive disturbances. EVELY. *Polclin.*, Brux., 9, 2, xii, No. 8.
- A case of hernia and rupture of the large pectoral muscle. THOMAS. *Arch. Internat. de Med.*, 9, 2, cxxvii, April.
- Cooper's hernia. K. M. W. *Arch. f. klin. Chir.*, 9, 2, c.
- Pectus hernia. MANTYLL. *Polclin. Roma*, 9, 2, xi, No. 5.
- Intestinal troubles caused by hernia in umbilicus. D. M. S. *Scapellato f. Lige med.*, 9, 2, lvi, No. 45.
- A method of operating for radical cure of umbilical hernia. T. W. I. D. VIER. *Transvaal M. J.*, 19, 2, vi, 249.
- Two successful cases of operation for strangulated inguinal hernia in female infants, of the ages of 7 and 7 days. WITTELOUKE. *Proc. Roy. Soc. Med.*, 9, 2, vi, Sect. Dis. Children, 90. [277]
- A new plastic aponeurotic method for the cure of direct inguinal hernia. C. S. VITTI. *Bull. d. sc. med. ch. Bologna*, 9, 2, lxxv, 30. [278]
- Partial separation of the mesentery in case of strangulated hernia. G. SABATINI. *Chir. chir. Milano*, 9, 2, xli, 790.
- The V-Y treatment of hernias. BARON and BARON. *Bull. n. klin. Chir.*, 9, 2, lxxv, 205.
- Circumscribed formation of tumors in the abdominal cavity, starting from the omentum. SCHULZ. *Berl. klin. Wchnsch.*, 9, 2, l, N. 20.
- The development of tumors of the omentum. E. HOLLAND. *Deutsche und Wchnsch.*, 9, 2, xxi, 845.
- Inflammatory tumors of the omentum. A. KROG. *Gazz. med. ital. Torino*, 9, 2, lxxv, No.
- Abscesses in the omentum and following necrosis of the pancreas. A. BIRNBAUM. *M. d. Grenzgeb. d. Med. u. Chir.*, 9, 2, xvi, 99.
- Surgical diseases and injuries of the mesentery and the omentum. PRITZ and MÖRNER. *Deutsche Chir. Lekt.*, 40, k. Stuttgart. *Eink.*, 9, 2. [279]
- Cystic lymphangioma of the mesentery. D. RÖXA. *Berl. klin. Chir.*, 9, 2, lxxv.
- Hemorrhagic mesenteric and retroperitoneal cysts. CARSTEN. *Chir. chir. Milano*, 9, 2, xli, N. 4.
- Multiple chylous cysts of the mesentery as well as seven years of age, which arose at the intestinal perforation and diffuse peritonitis. K. FUCHS. *Arch. f. klin. Chir.*, 9, 2, cl, 30.
- Umbilical hernia. MITCHELL. *Brit. M. J.*, 9, 2, 1, 924.
- Intestinal diverticulitis. D. P. M. *Ann. Col. Med.*, 19, 2, 145.
- Inflammatory affections which start from acquired diverticuli of the sigmoid flexure. C. LONARDO. *Berl. n. klin. Chir.*, 9, 2, lxxv, 617.
- Remarks on intra-abdominal developmental adhesions. G. and ANDERSON. *Lancet*, Lond., 9, 2, cl, lxxv, 700.

Gastro-Intestinal Tract

- When is operative treatment indicated in chronic dyspepsia? W. H. W. *Ann. Internat. M. J.*, 9, 2, xlii, 435.
- Radiological diagnosis of stomach diseases. BONNETT. *Gazz. med. ital. Torino*, 9, 2, lxxv, N. 7.
- Röntgenological diagnosis of stomach diseases. M. LANGE. *Berl. klin. Wchnsch.*, 9, 2, 1, 734.

- Methods and results of roentgenology of the stomach. O. HENSE. *Zschr. f. Röntgenk.*, 9, 2, xv, 80.
- The roentgenological behavior of the stomach in gastric cancer and in the process of vomiting. CERNIAK and SIKKA. *Wien. klin. Wchnsch.*, 9, 2, xvi, No. 1.
- Gastroptosis and colicosts transversa as seen from post mortem examinations. K. M. LIVEN. *N. Y. M. J.*, 19, 2, xvi, 1090.
- Bilobular stomach. TOTTEN and ROX-BENNETT. *Pres. med.*, Par., 9, 2, xii, No. 37.
- A case of bilobular stomach, diagnosed by means of radiography and operated by the procedure of gastroenterostomy. VONARD. *Ann. Internat. de Chir. gastro-intestinale*, 9, 2, vii, No.
- A case of hour-glass stomach caused by adhesive tuberculous peritonitis. F. KROG. *Cor.-Bl. f. schwed. Acad.*, 9, 2, xli, No. 20.
- Boiling rupture of the stomach of extraordinary extent. J. D. SULLIVAN. *J. Am. M. Ass.*, 1913, ix, 115.
- Tuberculosis of the stomach. ZETAS. *Zentralbl. f. d. Grenzgeb. d. Med. Chir.*, 9, 2, xvi, Nos. 5-6.
- Combined subserosal and carcinoma of the stomach, with report of case upon which partial gastrectomy was performed. H. H. M. LYLE. *Am. J. M. Sc.*, 1913, clvi, 69. [280]
- Gastric cancer. J. SMITH. *J. Oulu. St. M. Ass.*, 1913, 641.
- Carcinoma of the stomach. J. V. O'CONNOR. *N. Y. M. J.*, 9, 2, xvi, 930.
- A lecture on some points in the early diagnosis of cancer of the stomach. M. MORRIS. *Brit. M. J.*, 9, 2, l, 104.
- The early diagnosis of cancer of the stomach. J. H. MARRAS. *Pres. M. J.*, 9, 2, xvi, 639.
- The dissolved albumen test for gastric cancer. F. W. ROUSE. *Med. Rec.*, 9, 2, lxxvii, 248.
- Researches on ascotides as causal factor in case of papillomatous and carcinomatous tumor in the stomach of rat. FRICKLE. *Hosp. Tid. Kjøbenhavn*, 9, 2, lvi, No. 7.
- The exposure of inoperable carcinomata of the stomach to the X-ray and the results obtained. H. PASTERNAK. *München. med. Wchnsch.*, 9, 2, lx, 855. [281]
- Surgery of gastric carcinoma. ALBERT. *Berl. n. klin. Chir.*, 9, 2, lxxv, No.
- Cysto-diagnoses in ulcer and cancer of the stomach. SAVIGNY. *Epistola*, 9, 2, xxi, N. 6.
- Gastric ulcer. ALBERT JORDAN. *Proc. Roy. Soc. Med.*, 9, 2, vi, Electro-Therap. Sect. 7. [282]
- Diagnosis and treatment of ulcer of the stomach. PETER. *Hygien. Stockholm*, 9, 2, lxxv, No.
- The diagnosis and treatment of gastric and duodenal ulcers. S. D. M. *Ann. Internat. M. J.*, 9, 2, xvi, 624.
- The pathogenesis of gastric ulcers. KATZBERG. *Arch. f. klin. Chir.*, 19, 2, cl, No.
- Symptomatology of gastric and duodenal ulcers. F. VONCK. *Hosp. Bull. Univ. Md.*, 9, 2, lx, 45.
- Experimental production of gastric and intestinal ulcers. GERBARD. *Arch. f. klin. Chir.*, 9, 2, cl, No.
- Relation of gastric and duodenal ulcer vascular lesion. W. OMBRI. *Arch. Internat. Med.*, 1913, ix, No. 3.
- On the frequency of the transverse ulcer of the stomach and cancer. J. FRIDENWALL. *Boston M. & S. J.*, 1913, clvi, 706. [283]
- Contribution to the treatment of perforated gastric and duodenal ulcers. L. SMITH. *Berl. klin. Chir.*, 1913, lxxv, 60. [284]
- Perforation of chronic latent ulcer of the stomach, perigastric subphrenic abscess as secondary symptom. LANCET. *Rev. Internat. de Chir. med.*, 9, 2, xli, No. 94.

department of the Obukhov City Hospital for men in St. Petersburg. *Boi/uznik. Russk. Vrach.* 9 3, xii, 287 [290]

Casistic and experimental contributions on rupture of the liver and the bile-ducts. *Osterr. Arch. f. klin. Chir.* 9 3, cl, No.

Acute yellow atrophy of the liver. W. E. STEWART. *J. Okla. St. M. Ass.* 9 3, 134

Syphilis of the liver. T. W. STURGEON. *S. Paul M. J.* 9 3, xv, 99.

Differential diagnosis of hydatid cysts and bacerae of the liver. *Gazette. Ann. d'hyg. et de méd. colonial. Par.* 9 3, xvi, No. 1.

A case of abscess of the liver in appendicitis. G. J. BARNARD. *Chirurgie, St. Peterb.* 9 3, xxiii, 14.

Costal caries as secondary symptoms of abscesses of the liver. *Lancet. Ann. d'hyg. et de méd. colonial. Par.* 9 3, xvi, N.

A series of twenty personally observed cases of bacerae of the liver in cold climates. *Petersb. u. Oudum. Arch. de méd. et de pharm. na.* Par. 9 3, N. 4, April.

Sarcoma of the liver associated with bilateral diffuse metastases of the kidneys in rooster. *LÖNN. Zschr. f. Krebsforsch.* Berl. 9 3, xii, No.

The medical operation of al. eol. echinococcus of the liver. *Moskov. Chir. arch. Vrachovna, St. Peterb.*, 913, xiii, No.

Statistical, clinical and chemical studies on the etiology of gall-stones, with special consideration of conditions in Germany and in Japan. *Mitsuk. Arch. f. klin. Chir. Berl.*, 9 3, cl, N.

Treatment of gall-stones. J. PHILLIPS. *Elect. Rev.* 9 3, xvi, 59.

Chronic stenosis due to retention stenosis of the ductus choledochus. choledochoduodenostomy. BRAUD and GILFILLAN. *Bull. et mém. Soc. Méd. d'Élop. de Par.* 9 3, xiii, 255.

Acute calculeous occlusion of the choledochus, with statistical and technical remarks. *HAUSENBERG. Münch. med. Wochenschr.* 9 3, li, N. 9.

The frequency of aerophagy associated with biliary blemish. *MATMAN. Arch. d. anal. de l'appar. dig. et de la digest.* Par. 9 3, vii, N. 4.

Contribution to the knowledge of congenital stenosis of the bile-ducts. F. VARETTI. *Arch. p. le sc. med. Torino.* 9 3, xxvii.

The origin of the so-called white bile in permanent occlusion of the choledochus. J. BRUNTON. *Mitt. u. d. Grenzgeb. d. Med. Chir.* 9 3, xxvi, 40.

Inhibitive action of bile on bacillus coli. E. O. JORDAN. *J. Infect. Dis.* 9 3, xi, 5.

Growth in the gall-bladder and growths in the bile-ducts. S. PHILLIPS. *Lancet, Lond.* 9 3, clxxxv, 443.

Acute perforation of the gall-bladder with an account of six cases. L. B. BRANTFORTH. *Brit. M. J.* 9 3, i, 906.

The complications of cholecystitis as shown by the experiences of the last three years. B. HOWLAND. *Lancet. Clin.* 9 3, clx, 534.

Cholelithiasis and cholecystitis in infancy and its treatment. KRAUT. *Zentralbl. f. d. Grenzgeb. d. Med. u. Chir.* 9 3, xvi, No. 5.

Can cholelithiasis be successfully treated without operation. T. H. DELANY. *Iodan M. Gaz.* 19 3, xlviii, 80.

The technique of surgery of the gall bladder and the bile ducts. F. C. ECKHART. *Illness M. J.* 9 3, xlviii, 407.

Surgery of the biliary passages. J. S. HANCOCK. *Elect. M. J.* 19 3, lxviii, 225.

Operative treatment of affections of the bile-ducts. P. Nord. *M. d. Ark., Stockholm.* 913, xlv May.

On the secretion of pancreatic juice. I. MATSUO. *J. Physiol.* 9 3, xlv, 447.

The importance of quantitatively determining pancreatic ferments in the feces for the diagnosis of lesions of the pancreas. P. T. ZUCCOLA. *Riforma med.* 9 3, xlv, 303.

Pathology of the pancreas. Cystic cavities in the islands of Langerhans. L. W. SEABOLT. *Zentralbl. f. allg. Path. u. path. Anat.* 9 3, xlv, 34.

The pathology of the pancreas. ANGLADE. *Virchows Arch. f. path. Anat. u. f. klin. Med.* 9 3, cxviii, No. 2.

Pancreatic affections and rare affections of the duodenum and their value for the differential diagnosis of duodenal ulcer. FANTONNI. *Deutscher chir. Kong.* 9 3, [291]

Pancreatitis. KOCZ. *Nederl. Tijdschr. Geneesk.* 9 3, i, No. 5.

Pancreatitis. PILL. *Nederl. Tijdschr. Geneesk.* 9 3, i, N. 5.

Lipoma pancreatica. E. J. MULLALL. *Canad. M. Ass. J.* 9 3, li, 382.

Experimental and clinical relations between necrosis pancreas and cholecystitis on the one hand and cholelithiasis on the other. *NOTEMANN. Deutscher chir. Kong.* 9 3, [292]

A case of serous cyst of the pancreas. NOVAKO. *Riv. osp. Roma.* 9 3, xi, No. 9.

Solitary hydatid cyst of the head of the pancreas. CHIAUDETTO. *Clin. chir. Milano.* 9 3, xii, No. 4.

The surgical significance of the accessory pancreas. CAWABDRE and SROET. *Ann. Surg. Phila.* 913, lvi, 613.

Banti disease in infancy two cases of Banti disease in earliest infancy. D'ELIA. *Riv. med. de la Suisse Rom. Genève.* 9 3, xvi, No. 5.

Cysts of the spleen. R. H. FOWLER. *Ann. Surg. Phila.* 9 3, lvi, 658.

Splenectomy. M. A. TATE. *Lancet-Clin.* 9 3, clx, 477.

Death from internal hemorrhage seven days after an injury of the spleen. H. HANCO. *Med. Klin.* 19 3, lx, 585.

Miscella sous

The abdomen, an important factor in chronic joint affections. F. E. PROCTOR. *Am. J. Orth. Surg.* 9 3, x, 80.

Diagnoses of the acute abdominal conditions of children. E. M. CORCORAN and E. CAUTLEY. *Practitioner Lond.* 9 3, xc, 708.

Suppurative conditions of the upper abdomen. H. F. ZIMMERMAN. *Ky. M. J.* 9 3, xi, 400.

On the question of penetrating abdominal wounds. K. S. SOKURAI. *Volensko-med. J. St. Peterb.* 9 3, cxviii, 372.

Bullet wound of the abdomen associated with lesions of the rectum, the colon, the mesentery and the omentum recovery. COHEN. *Policlin., Roma.* 913, xv, N. 7.

The consideration of few points in vascular plethia. W. S. NEWCOMB. *Penn. M. J.* 19 3, xvi, 659.

The cause of epigastric pain. G. FARROW. *Gaz. d. osp. d. clin. Milano.* 9 3, xxv, 519.

Spontaneous eversion, treated and cured by abdominal gymnastics. WALTHER. *Bull. et mémo. Soc. de chir. de Par.* 9 3, xxviii, 747.

Laparo- and thoracoscopy. H. C. JACOBSEN. *Beitr. z. klin. d. Tuberkul.* 913, xxv, 11.

A plea for early laparotomy in abdominal diseases. A. GOLDMAN. *Med. Rec.* 913, lxviii, 681.

The importance of surgical interventions in the abdominal cavity in children. D. BARTIS. *Beitr. z. klin. Chir.* 913, lxviii, 6.

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons —
General Conditions Commonly Found
in the Extremities

The chemistry of bone marrow: the fifth communication on "The chemistry of the blood in diseases." H. BRUNN and M. BOKAZA. *Zschr f exp Path. Therap.* 9 3, xlii, 567.

Experimental contributions to the pathogenesis of acute haematogenous osteomyelitis. F. L. DREHMER. *Deutsche Zschr f. Chir.* 9 3, cxiii, 6. [1941]

Osteomyelitis in earliest infancy: osteomyelitis of the radius, osteomyelitis of the superior extremity of the femur: the macrobic nature of these osteomyelitis in earliest infancy: importance of streptococcal infections. E. KRENNHOF. *Bull. méd. Par.* 9 3, xxviii, 243.

Infections osteomyelitis. KLEIN. *Beitr. z. klin. Chir.* 9 3, lxxvii, No. 2.

Localized osteomyelitis of the long bones. C. C. SIMMONS. *Boston M. & S. J.* 9 3, clxvii, 637.

Atrophy of the femoral neck as secondary symptom of osteomyelitis in early infancy; case vera. GARDNER. *Rev d'orthop.* Par 9 3, No. 3.

Tuberculous osteomyelitis of the digits. R. M. GREEN. *Boston M. & S. J.* 9 3, clxvii, 707.

Tuberculosis of the bones and joints and its homeopathic treatment. A. N. ROOZARTS. *North Am. J. Homoeop.* 9 3, xlviii, 215.

Tuberculous reaction: the focus in tuberculosis of bones and joints. F. DELITALA. *Arch. di ortop. Milano*, 9 3, xxx, 2.

The treatment of osteo-articular tuberculosis. GARAHL. *Arch. f. klin. Chir.* Berl 9 3, cl, No. 2.

The treatment of osteo-articular tuberculosis in infancy. BARRETT. *Chirurg. Par.* 9 3, viii, No. 10.

Radiographs of diaphyseal tuberculosis of the long bones. BROCA and PELLERIN. *Paris méd.*, 9 3, No. 24.

Modern efforts directed toward conservative treatment of surgical tuberculosis. ROSENTHAL. *Zentralbl. f. d. Gesamte d. Med. u. Chir.* 9 3, xvi, No. 5.

Light-treatment of surgical tuberculosis. VULPIUS. *München med. Wchnsch.* 9 3, li, No. 30.

The treatment of surgical tuberculosis in special sanatoria. VULPIUS. *Med. klin.* 9 3, li, No. 9.

Post typhoid osteo-periosteitis. TOURNAUX and GARNIER. *Province méd.* Par 9 3, xlvii, No. 9.

Osteitis deformans (Paget's disease). W. G. TROSBOW. *Med. Rec.* 9 3, lxxviii, 822.

Some diagnostic features of certain intra osseous lesions, scutula fibrosa, bone cyst, and their relation to other intra osseous lesions. A. H. FARRBERG. *Lancet-Ott.* 9 3, clx, 504.

Diagnosis and treatment of Morison's disease. HOMOZYNSKI. *Gen. Méd. Warszawa*, 9 3, xlviii, No. 9.

Tumors of bone. S. B. CHILDS. *Colo. Med.* 9 3, x, 50.

A primary sarcomatoma of the tibia. B. FRIEDL. *Zschr. f. Path.* 9 3, xii, 432.

Osteosarcoma. K. NECKERSVILLEN. *Mitt. d. Helsingborg Staatskränkst.* 9 3, xli, 75.

Köhler's disease of the scapula bone in children is not fracture. KÖHLER. *Arch. f. klin. Chir.* 9 3, cl, No. 2.

A case of acute osseous atrophy. MÜLLER. *Deutsche wch. Arch. Zschr.* 9 3, xli, No. 9.

A radiographic study of translocation of the carpal bones. CHAPUT and VAILLAN. *Rev d'orthop.* Par 9 3, xlv, 57.

Accommodation in ankyloses of the fingers. TATTA. *Monatschr. f. Unfallchir. u. Invalid. Wes.* 1912, xi, No. 5.

A peculiar typical deformity of the styloid process of the ulna. RICHART. *München. med. Wchnsch.* 1912, li, No.

A case of arrested development of the femur. PERRY. *Rev d'orthop.* Par 9 3, xlv, 265.

Etiological studies in osteo-arthritis. L. A. O. GORDON. *Am. J. Orth. Surg.* 9 3, x, 142.

A case of hypertrophic osteo-arthritis of pseudoroom origin in child four years of age. T. FRAGALE. *Gazz. internaz. di med. chir. Napoli*, 19 3, li, 51.

The structure and mechanism of the human joints in health, disease and injuries. G. G. D. VAN. *Am. J. Orth. Surg.* 9 3, x, 30.

Diseases of joints and bone marrow. L. W. ELY. *Am. J. Surg.* 9 3, xlvii, 79.

Hydrarthrosis. PULA. *Gen. Méd. Warszawa*, 9 3, xxxii, No. 30.

Tubercle arthropathy of the knee: resection cure. R. FALLON. *Riforma med.* 9 3, xlii, 43.

An X-ray study of gastro-intestinal findings in multiple arthritis. G. R. ELLIOTT. *Am. J. Orth. Surg.* 19 3, x, 26.

Static joint diseases, their etiology and their relation to arthritis deformans. G. FRIEDL. *Am. J. Orth. Surg.* 19 3, x, 60.

Some considerations on the pathogenesis and treatment of toxic arthritis. P. W. NATTA. *Am. J. Orth. Surg.* 9 3, li, 100.

Physiotherapy of chronic affections of the joints, with special consideration of thermotherapy. B. BERNARD. *Zentralbl. f. d. ges. Therap.* 9 3, xliii, 25.

Chronic arthritis: therapeutic evidence of the incidence of streptococcal infection. D. W. C. JOHNS. *Brit. M. J.* 9 3, li, 417.

The etiology of chronic non-tuberculous arthritis—the mineral arthritis deformans. L. W. ELY. *Am. J. Orth. Surg.* 9 3, x, 7.

Experimental streptococcal arthritis in rabbits. L. JACKSON. *J. Infect. Dis.* 9 3, vi, No. 3.

Gonorrheal arthritis. E. J. ABRAHAM. *Am. J. Clin. Med.* 9 3, xii, 405.

The treatment of gonorrheal pseudo-rheumatism by the antihemagglutinating serum of Dopfer. BARBER. *Arch. de méd. et de pharm. Par.* 9 3, li, 4.

Treatment of gonorrheal arthritis by the antihemagglutinating serum. LASSERRE. *J. de méd. de Bordeaux*, 9 3, xlii, No. 9.

The serum therapy of pneumococcal arthritis. H. L. TAYLOR. *Cleveland M. J.* 9 3, xii, 248.

A contribution to the etiology of rheumatoid arthritis. W. CHOWN. *Lancet, Lond.* 9 3, clxvii, 377.

Rheumatism: its etiology and pathology. J. A. OWEN. *V. M. Sci. Month.* 9 3, xvi, 40.

The diagnosis of the tubercular character of joint disease. E. G. BRACKETT. *Boston M. & S. J.* 9 3, clxvii, 673.

Contribution to the study of intra-articular tuberculosis of the hip-joint. F. DELITALA. *Bull. di sc. med.* 9 3, lxxvii, 53.

Causes of traumatic inflammations of the hip-joint. Z. BERND. *Monatschr. f. Unfallchir. Invalidenwesen*, 19 3, xli.

Fixation in the treatment of hip disease. E. H. BRADFORD. *Am. J. Orth. Surg.* 9 3, x, 354.

The mechanical treatment of hip disease. G. B. PACK. *Am. J. Orth. Surg.* 9 3, x, 350.

Results in hip tuberculosis after mechanical treatment.

(libious traction and hygiene) H L T VLIN. Am J Orth. Surg., 9, 3, 121.

Treatment of various affections of the joints, including tuberculous affections, and cold abscesses by means of camphorated phenol. PIRL. Zentralbl. f. Chir. 9, 3, 21, No. 2.

Radiographic study of ossification around the knee joint in the new-born. DELORME. Bull. off. soc. franc. d'elec. trothérap. et de radol. 9, 3, 100.

Changes to the semilunar cartilages of the knee-joint. R. MOISEW. Clin. J. 9, 3, 21. [195]

Brake of the right knee tetanus, open fracture of the right fibula. C. W. RIN. op. Roma, 9, 3, 11, No. 8.

Penetrating wounds of the knee joint. MILLER. Arch. f. klin. Chir. 9, 3, 11, No. 2.

Arthroscopical Epineuritis of the knee. LAVERA and DU SOLAN. Arch. gén. de chir. Par. 9, 3, 11, No. 4.

A case of Volkmann's ischaemic contracture of the hand. G. DE SMITH. Lancet, Lond. 9, 3, 11, 130.

Congenital fusiform contracture of the joints of the little finger. SCHWARTZ. Zentralbl. f. d. Grenzgeb. d. Med. Chir. 9, 3, 11, No. 5.

A consideration of the action of the extrinsic and intrinsic muscles of the foot from an anatomical and mechanical standpoint. L. T. BROW. Am. J. Orth. Surg. 9, 3, 11, 8.

Tuber closs of the supraspinatus muscle. J. T. RICE. Am. J. Orth. Surg. 9, 3, 11, 603.

Muscle abscess due to a plus bacilli occurring in the course of typhoid fever. ARI and KURAMOTO. Sait. gaku-Zasshi, Tok. 9, 3, 11, 309.

Myositis jarvis. MURCHES and W. BRIDCH. 9, 3, 11, No. 10.

Multiple myeloma. T. SAK. M. L. L. Chir. M. J. 9, 3, 11, 411.

The treatment of spastic contractures. A. BROFFEL. Am. J. Orth. Surg., 9, 3, 11, 6.

Contribution on skeletal con. ratures after accident. H. HARTMANN. Arch. f. Orthop. Mechanotherapie. Unfalldchr. 9, 3, 11, 4. [195]

Subcutaneous ruptures of the flexor tendons of the fingers. PROKUDIN. Monatsh. f. Unfallheilk. Invalld. Wes. Leipz. 9, 3, 11, No. 5.

Pathological anatomy of tendinous synovitis. The synovial membrane and the granules. FORTU and KITE. Rev. de chir. Par. 9, 3, 11, 11, No. 5.

The treatment of phlegmons of the synovial sheaths of the hand after Letec's method. LEROUX. Province méd. Par. 9, 3, 11, 194.

Tearing of the tendon of the quadriceps and of the pre-patellar ligament. JAKUBATZ. Wien. klin. Wochenschr. 9, 3, 11, 194, No. 20.

A case of pythidic burn. CLAYTON. Ugesk. f. Læger. Kjøbenhavn. 9, 3, 11, 11, No. 8.

Infect. inflammation of hand. J. J. DILL. J. Okla. St. M. 9, 3, 11, 539.

Treatment of keloid. A reference to the pathological anatomy and location of keloid. G. M. DORR. N. Y. J. Am. M. Ass. 9, 3, 11, 14, 6. [196]

A partial amputation of the lower limb, which is affected with sciatica. F. VIX and TOCHMAN. Lyon. méd. 9, 3, 11, No. 9.

Elephantiasis neurodermatosa of the foot. A general neurodermatitis. F. T. RICE. Am. J. Orth. Surg., 9, 3, 11, 606.

Fracture of the long bones. S. D. V. or MISTEL. Therap. Gaz., 9, 3, 11, 11, 105.

Röntgen interpretation of a few common type fractures. A. SOULAM. Western M. News, 9, 3, 11, 5.

Two cases of rare tubercle bone fractures. SCHLIERER. Wien. med. Wochenschr. 9, 3, 11, 11, No. 11.

Reduction of fragments under local anæsthesia. DOUGLASS. Zentralbl. f. Chir. 9, 3, 11, No. 20.

Longitudinal fissured fracture of the lower end of the radius. J. L. BENDALL. J. Am. M. Ass., 9, 3, 11, 537.

Treatment of fractures of the radius. THOLL. Arch. f. klin. Chir. 9, 3, 11, No. 2.

Massage and mobilization of fractures of the elbow in infancy. RICHARDS. Clinique Par. 9, 3, 11, 11.

Diagnosis and treatment of fractures in the region of the elbow-joint. T. VOELKER. Med. Klin. 9, 3, 11, 44. [196]

Fractures of the pelvis. JENSEN. Arch. f. klin. Chir. 9, 3, 11, No. 2.

Fracture of the acetabulum. U. MILES. New Orleans M. & S. J. 9, 3, 11, 8, 5.

Reduction of fractures and luxations of the lower limbs under spinal anæsthesia. RICHARDS. Clinique Par. 9, 3, 11, 11, No. 30.

Fractures of the lower limb treated while permitting the patient to talk about. BAUMANN. Cor. Bl. d. allg. Arzt. Ver. Tübing. 9, 3, 11, 6.

A clinical lecture on fractured femur. C. G. W. RICE. Clin. J. 9, 3, 11, 97.

Shattering of the femur with extensive compound injury of soft parts, recovery without operation with useful limb. J. Am. M. Ass. 9, 3, 11, 343.

Injuries to the condylar cartilages. E. B. BEAC. Beltr. klin. Chir. 9, 3, 11, 663. [197]

Treatment of the spiral fractures of the tibia. G. LARSON. Calif. St. J. Med. 9, 3, 11, 85.

Fractures of the calcaneum. BRAND. Nederl. Tijdschr. Geneesk. 9, 3, 11, No. 14.

Fractures of the greater tuberosity of the calcaneum. SOUVERA and RIVERA. Arch. gén. de chir. 9, 3, 11, 11, No. 4.

Treatment by extension, of fractures of the calcaneum and of the metatarsus. GRIFFITH. Zentralbl. f. Chir. 9, 3, 11, No. 2.

A lecture on birth palsy: subluxation of the shoulder joint in infants and young children. H. A. T. FAIRBANK. Lancet, Lond. 9, 3, 11, 11, 7.

A case of complete anterior dislocation of both bones of the fore-arm at the elbow. R. WINTLOW. Surg., Gynec. & Obst., 9, 3, 11, 559. [197]

Cases illustrative of () fracture of carpal scaphoid with luxation of semilunar () fracture of carpal scaphoid with palpable deformity. F. G. SULLIVAN. J. Am. M. Ass. 9, 3, 11, 556.

The true luxation of the hand. R. GILLESPIE. Dissertation, Strasbourg, 9, 3, 11, 11.

Traumatic dislocation of the right macro-lab synchondrosis in a girl twenty-one months old cure. BRAYNE. RAYE, AND B. VON. Arch. de méd. d. enfants, Par. 9, 3, 11, 11, No. 5.

Luxatio centralis femoris. Z. BERN. Arch. f. Orthop. Mechanotherapie. u. Unfalldchr., 9, 3, 11, 11, 11.

A case of recurrent luxation of the patella. NAGLOST. WILCOCHER. Arch. de méd. d. enfants, Par. 9, 3, 11, 11, No. 5.

Inward subtrochanteric luxation of the foot. ECKH. Riv. osp. Roma, 9, 3, 11, No. 8.

Subtalar luxation of the foot. P. VAN. Norsk mag. f. Læger. Kjøbenhavn. 9, 3, 11, 11, No. 5.

Fractures and Dislocations

Some unusual fractures. W. H. SUTTER. Dela. St. M. J. 9, 3, 11, 11.

R rigory of th Bones, Joints, etc

A contribution to the method of treatment of shortening, in malunited fractures, of an extremity. *Jl. C. P. R. Thonon*. *Am J Orth Surg* 9 3, 2, 639

The open treatment of recent fractures according to the method of Lambotte. *LAMBOLOTTE*. *Progrès Méd.*, Par 9 3, 11, No 38

Method of bone-planting. C. E. BLACK. *J Am M Ass* 9 3, 11, 608

Results of experiments on various bone-plates applied to fractured femora in the cadaver. E. L. ELLISON. *Therap Gaz* 9 3, 231, 223

The treatment of fractures of the patella. W. SALOMONSON. *Arch f Orthop Mechanotherap. u. Unfallkur* Hamb 9 3, 216, 266

Treatment of recent fractures of the patella. BÉGAUD. *Bull Méd Par* 9 3, 231, 4

Plastic surgery for the joining of bone ca riles. (1918). *Rev. op* 9 3, 18, 11

Graftings of fat in old fractures of osteosclerotic ca riles. LARON and ELLISON. *Rev d'orthop. Par* 9 3, 2, 3

Treatment of rheumatic curvature of the iliac. ROUS. *Ann. Rev. Internat. de méd.* 9 3, 216, No 10

Non-vascular transplantation of graft. foot peroneus. H. G. W. RICH. *Am J Am M Ass* 9 3, 11, 531

Partial and complete grafts of part of joints in electro-radical-lumeral resections in animal experiments. N. PIZZU. *Clín. Int. Milano* 9 3, 216, 805

Ortho-articular graft. KALININ. *K. op. Roma* 9 3, 216, 8

Arthroplasty. J. B. M. SMITH. *Ann Surg Phila* [1917]

One operation in pseudo-arthritis of the elbow. (1917). *Arch f. kur. mechan. Orthop* 2, 216, 199

Effect of other operations on the use of intra-articular alkalinization in the partial joint of pelvis. E. L. ELLISON. *B. R. M. and W. W. P. Ann. Am J Orth Surg* 9 3, 2, 699

Operative treatment of paralyzed feet. MIOLE. *Zentralbl. f. Chir* 1917, 10

Treatment of rickets. *B. Med. J. H. C. M. P. Am J Orth Surg* 9 3, 2, 647

A case of spinal injury. C. W. PIERCE. *North Am J Homop.* 9 3, 231, 74

Traumatic hematomyelia. GILFORD and DRUMMOND. *Par. Méd.* 9 3, No 3, 116

Traumatic spondylolisthesis following the fracture of congenitally deficient fifth lumbar vertebra. A preliminary report. A. H. MACDONALD and J. A. N. THOR. *Am J Orth Surg* 9 3, 2, 5

Transplantation of joints obtained from cadavers. L. REED. *Deutscher Chir. Kong.* 9 3, 1917, 199

Mobilization of the ankylosed elbow joint by bone transplantation of periosteum. W. GILFORD. *St. Petersb. med. Zh.* 9 3, 231, 91

Successful arthroplastic surgery of the elbow by means of implantation of an ivory prosthesis. KÖNIG. *München med. Wchschr.* 9 3, 11, No

Replacement of finger and toe phalanges. W. GILFORD. *München med. Wchschr.* 9 3, 11, 356

Chelotomy. function-restoring operation in crippling traumatic arthritis of the hip-joint. W. S. HANCOCK and C. P. BAZZ. *Brit. M. J.* 9 3, 1, 939

Chelotomy for crippling traumatic arthritis of the hip-joint. W. I. D. WILSON. *Brit. M. J.* 9 3, 1, 941

The open reduction of the congenital hip dislocation by an anterior incision. K. LUDLOW. *Am J Orth Surg* 9 3, 2, 436

The operative treatment of snapping hip and of traumatic fracture of the ilio-femoral femora. W. R. MONTAGU. *Arch f. Chir. Leipzig* 1917, 10, 11, 11, 11

The new principle in the treatment of the knee in chronic articular affections. BOCCACCIO. *Arch f. Chir.* 9 3, 1, 1

Conservative operation (treatment of hemiarthrosis). W. J. M. SMITH. *Am J Orth Surg* 9 3, 2, 50

Supra-condylar osteoplastic amputation of the femur in retention of the supporting power of the stump. R. DALLA VEDOVA. *Rev. op.* 9 3, 2, 537

The formation of useful stumps in low amputations of the leg (amputated in supra-malleolar) by means of the osteoplastic employment of the malleoli. L. ZENK. *Arch f. Chir.* 9 3, 1, 1

Transplantation of tendons. W. B. LA FORET. *Ann. M. J.* 9 3, 2, 51

Free transplantation of periosteum: experimental observations. M. J. M. *Arch f. Chir. Leipzig* 1917, 10, 11, 11, 11

Lead result in transplantsations from the dead and from monkey. B. RICH. *Deutscher Chir. Kong.* 9 3, 1917, 199

The results obtained by implantation of silk tendons in the muscular paralysis of polio myelitis. N. LARON. *Am J Orth Surg* 9 3, 2, 5

A simple operation for the relief of the deformity in certain cases of Volkmann's paralysis. J. W. EL. *Am J Orth Surg* 9 3, 2, 5

Primary amputation of the arm and an amputation. F. LARON. *Par. Méd.* 9 3, 2, 116

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

An anatomical explanation of many of the cases of rick or postural back. (1917) many of the leg paralysis. J. L. GOLDSTEIN. *Am J Orth Surg* 9 3, 2, 309

Case of spinal spine. CHILLER and W. T. *Rev. d'orthop. Par* 9 3, 2, No 3

Abstract of the central spine report of case. R. O. MONTAGU. *Am J Orth Surg* 9 3, 2, 647

A case of spinal injury. C. W. PIERCE. *North Am J Homop.* 9 3, 231, 74

Traumatic hematomyelia. GILFORD and DRUMMOND. *Par. Méd.* 9 3, No 3, 116

Traumatic spondylolisthesis following the fracture of congenitally deficient fifth lumbar vertebra. A preliminary report. A. H. MACDONALD and J. A. N. THOR. *Am J Orth Surg* 9 3, 2, 5

Spondylitic scoliosis. G. VIGANI. *Arch. di chir. Milano* 9 3, 231, 60

A study of the condition frequently called "scoliosis scoliosis". C. H. DE MOORE. *Am J Orth Surg* 9 3, 2, 538

Scoliosis. A correction jacket applied in sections. E. H. BARNARD. *Am J Orth Surg* 9 3, 2, 78

Scoliosis and its treatment. G. BIRCH. *Par. Méd.* 9 3, 2, 116

Scoliosis and treatment of scoliosis. E. M. M. *Med. Klin.* 1917, 10, 60

The treatment of scoliosis (fixed type) by plaster supplemented by pneumatic pressure. J. P. LARON. *Am J Orth Surg* 9 3, 2, 5

The treatment of structural scoliosis. A. H. LARON. *Am J Orth Surg* 9 3, 2, 5

How should true scoliosis caused by the malformation

called post-operative hyperthyroidism, and their prevention. G W CARR. *Ann. Surg. Phila.* 9 3, LVII, 648. [365]

Right of way vs. hospital treatment of surgical shock. O F SCOTT. *Chicago M. Recorder* 9 3, XXIV, 57.
Anthrax. SCHULZ. *Anal. Sachverst. Ztg.* 9 3, XIX.

Tetanus. Three cases with recovery. E. C. HENRY. *Med. Council*, 9 3, XVII, 66.

Post-operative cases of death in abnormal narrowing of the aorta. F. CHWALD. *Deutsche med. Wchnsch.* 9 3, XXIX, No. 19.

Pre-operative determination of the powers of resistance of the patients. DE GRASOWE. *J. do chir.* 9 3, 433.

Complications following surgical operations. E. H. RECHMAN. *Ann. Surg. Phila.* 9 3, LVII, 78.

A peculiar action of foreign bodies. SUZUK. *München med. Wchnsch.* 9 3, LV, 9.

Sera, Vaccines and Ferments

The complement fixation test in the diagnosis of gonorrhea. R. G. OWEN and H. STURK. *J. Mich. St. M. Soc.* 9 3, XII, 247.

Serodiagnosis of typhoid by the deviation of the complement. J. HALPERIN. *München med. Wchnsch.* 9 3, IX, 914.

Abderhalden serum test for carcinoma. ERTWIG. *Wien. klin. Wchnsch.* 9 3, XXVI, No. 7.

Serodiagnosis of carcinoma. ROSENBERG. *Deutsche med. Wchnsch.* 9 3, XXXI, No. 20.

Clinical value of tuberculin in diagnosis and treatment. W. J. DUNEL. *Southern M. J.* 9 3, VI, 305.

The use of tuberculin in diagnosis and treatment. J. F. H. DALL. *Lancet, Lond.* 9 3, CLXXIV, 228.

Pica for uniform method of treatment with tuberculin. J. H. THOMPSON. *Brit. M. J.* 9 3, 4, 926.

The present evidence for and against the use of tuberculin as specific cure. H. B. SHAW. *Brit. M. J.* 9 3, 4, 924.

The treatment of infantile tuberculosis by Rosenbach tuberculin. C. RUCK. *Zschr. f. Kinderh.* 9 3, VI, 430.

Hypersensitiveness to tuberculo-protein and to tuberculin. C. R. AUSTRALIAN. *Bull. Johns Hopkins Hosp.* 9 3, XXIV, 141. [366]

Treatment of erysipelas with antithrombogenic serum. WELT. *Therap. Monatsh.* 9 3, XXVII, 173.

A method for standardizing bacterial vaccines. J. G. HOWARD. *J. Am. M. Ass.* 9 3, LX, 65.

An attempt to interpret present-day uses of vaccines. T. STARR. *J. Am. M. Ass.* 9 3, LX, 50.

Clinical observation on the effect of gonococcal vaccine in chronic gonorrheal arthritis. BRIDGEMAN. *Zschr. f. Urol. Berl.* 9 3, VI, No. 5.

Gonorrhea, new vaccine preparation. J. SCHULZ. *Dermat. Zschr. Berl.* 9 3, XX, 400.

Vaccinotherapy in bacteremia. SORMANI. *Nederl. Tijdschr. Geneesk.* 9 3, I, No. 5.

A note on the use of vaccines in the treatment of rheumatoid arthritis. A. B. SOLT. *Lancet, Lond.* 9 3, CLXXIV, 470.

Specificity of amphyphous reaction dependent on chemical constitution of proteins or on their biologic relations? H. G. WELLS and T. B. OSBORNE. *J. Infect. Dis.* 9 3, IX, No. 3.

Blood

The relations of the thymus and ovary to the blood picture. HENK. *Deutsche Gesellschaft f. Gynak.* Halle 9 3, III. [367]

The laws of the activity of the leucocytes in inflammatory processes. M. LÖBLER. *Fachsch. Jena.* 9 3, 1914, 141.

Investigation on analysis of the blood in struma and the effect of thyroidectomy on the constitution of the blood. E. NAGELHART. *Beitr. z. klin. Chir.* 9 3, XXXII, 480.

A case of very severe icterus of the newborn, cured by injection of defibrinated human blood. ALBRECHT. *München med. Wchnsch.* 9 3, IX, No. 8.

Some details of the venous circulation. E. SCHULZ. *Med. Fortschritt* 9 3, XLII, 160.

The occurrence of tubercle bacilli in the blood. BAC. *Zentralbl. f. d. Grenzgeb. d. Med. u. Chir.* 9 3, XVI, No. 5.

The value of polymorph neutrophilic leucocytes in disease. With special reference to vaccine treatment in tuberculous. E. H. BLACK. *J. Clin. Research.* 9 3, VI, 30.

Two cases of traumatic leucemia. FACCINI. *Quart. d. osp. d. Clin., Milano* 19 3, XXIV, No. 60.

Hemorrhagic anemia. ARROVER. *Policlin., Roma.* 9 3, VI, No. 5.

A method of controlling rectal hemorrhages. B. L. STIER. *J. Am. M. Ass.* 19 3, LX, 619.

Control of internal hemorrhages by means of intravenous injection of grape sugar. SCHULZ. *Therap. d. Gegenwart. Berl.* 9 3, LV, No. 3.

Successful treatment of hemophilic hemorrhages by means of thromboelastin. PARKENT. *München med. Wchnsch.* 9 3, IX, No. 1.

Hemorrhagic conditions of children. SOREK. *Arch. Pediat.* 9 3, XXX, 51. [368]

Blood coagulation, physico-chemical processes and their relation to the action of thrombin. M. LAMBERG. *Biochem. Zschr.* 9 3, I, 413.

Technique and results of any method of determining the lapse of time in blood coagulation. W. SCHULTZ. *München med. Wchnsch.* 9 3, IX, 4.

Remedial agents which specifically check coagulation and decrease the blood pressure in the female genitalia. L. PORTER. *Biochem. Zschr.* 9 3, XIX, 164. [369]

Thrombophlebitis of the external iliac vein. M. LEAL. *J. Am. M. Ass.* 19 3, LX, 133. [370]

Thrombosis of the portal vein following the effect of blunt force to the abdomen. EISENBERG. *Beitr. z. klin. Chir.* 9 3, LVIII, 176. [371]

Traumatic thrombosis of the veins of the upper arm. B. OUL. *Deutsche med. Wchnsch.* 9 3, XXXIX, N.

Thrombosis and embolism after gynecological operations. T. VON WENZEL. *Beitr. z. klin. Chir.* 9 3, XXXIV, 37. [372]

A case of embolism of the abdominal aorta. SCHULMAN. *Pract. Vrach.* 9 3, XX, 244.

Air embolism. W. F. RICE. *Hosp. Bull. Univ. Md.* 9 3, IX, 47.

Relation of gas embolism to production of artificial pneumothorax. S. T. HARRIS. *Southern M. J.* 9 3, VI, 300.

Embolism by adipose tissue in the large blood circuit and its cause. C. FROSTMAN and F. V. VILK. *Mitt. d. Gesellsch. d. Med. u. Chir.* 9 3, XLVI, 25.

Direct transfusion for hemorrhagic purpura. W. L. DUFFIELD. *Long Island M. J.* 9 3, VI, 55.

A case of direct transfusion of blood by end-to-end suture of the radial artery to the humeral vein. A. JACOBET. *Bull. Acad. Par.* 9 3, XLVI, 435.

Experimental, agglutinative, and hemolytic transfusions. OTTOMBERO, KALISZ and FRIEDMAN. *J. Med. Research.* 9 3, XLVIII, 141. [373]

Blood and Lymph Vessels

The relation of vascular conditions to phyllosin diseases. R. G. HOWARD and W. M. MEADE. *J. Pharmacol. & Exp. Therapeut.* 9 3, LX, 415.

Researches on the action of Röntgen rays on living tissues and their therapeutic applications. HORTADO. Raybero-amer. de clinic. med., Madrid, 9 3, xxv, No. 04.
Histological changes produced in the tissues by the action of rays. WICKHAM. Arch. d'electr. med. exp. et clin., Bordeaux, 19 3, xxi, No. 358.

Progress in the field of roentgenotherapy during the last year. H. E. SCHMIDT. Berl. klin. Wchnschr. 913, 1, 927.

A new device in X-ray tubes rendering the diaphragm unnecessary. S. TOLAZ. Arch. Röntg. Ray 9 3, No. 54, 473.

The present status of roentgenotherapy. N. DORTAT. Wien. med. Wchnschr. 9 3, lxxv, 935.

Critical contributions on the study of deep roentgenotherapy. KRAUS. Fortschr. d. Geb. d. Röntgenstr. 9 3, xxi, No.

A case of tardy injurious effects of deep roentgenotherapy. DORTAT. Fortschr. d. Geb. d. Röntgenstr. 9 3, xxi, No.

Experiments with hard Röntgen rays. F. M. GROSCH. München. med. Wchnschr. 9 3, lxx, 990.

Experiments with hard Röntgen rays, and special considerations on deep radiology. I. DORTAT. München. med. Wchnschr. 9 3, lxx, 996.

A handbook on instantaneous photography in roentgenotherapy. J. SCHWARTZ. Leipzig, 9 3.

Radiotherapy for tumors. WILKIN. Zentralbl. f. Gynäk. 9 3, xxviii, 60.

Radiotherapy of malignant tumors. R. JADICKA. Ann. d'Electroth. et de radiol. 9 3, xvi, 263.

Treatment of deep-seated cancer by X-rays excited by current of unobscuring alloy. S. TOLAZ. Internat. J. Surg. 9 3, 1, 69.

The biochemical action of rays, with special consideration of the Röntgen rays. BORDAT. Fortschr. d. Geb. d. Röntgenstr. 9 3, xxi, No.

The radiographic diagnosis of syphilis, tuberculous tumors and osteomyelitis of the long bones. W. M. BORDAT. Am. J. Surg. 9 3, xxvii, 5.

The radioactive substances of the thorium series in therapeutics. LEMOUCHEUX. Arch. d'electr. med. exp. et clin. Bordeaux, 9 3, xxi, No. 351.

The new radium and thorium therapy. F. H. BLACK. Med. Times, 9 3, xli, 35.

Radium emanation therapy. W. ECKELMANN. Lancet, Lond., 9 3, clxxv, 5.

Radium in dermatology. W. H. B. ANDERSON and F. C. HARRISON. Canad. Pract. & Rev. 9 3, xxxviii, 35.

The employment of radium in surgery. A. STROCK. Arch. f. physikal. Med. u. med. Techn., 9 3, vii, 3. [312]

Treatment by radium in post-operative relapse of sarcoma. HARRY. J. de radiol., Brux., 9 3, vii, No.

The use of radiography in surgical affections of the stomach and intestines. BÉLÉZ and MÉRILL. 5th Cong. d'Am. Fran. d. Chir. 9 Oct. [312]

The bactericidal action of ultra-violet light in clear turbid and colored water. M. OUKER. Ztschr. f. Hyg. u. Infektionskrankh., 9 3, lxxv, 97.

Herbotherapy. E. DORTAT. Ann. de med. et chir. infant. Par. 9 3, xvi, 289.

Chromocathodography. ILIEN. Deutsche Ges. f. Gynäk. Halle 9 3.

The atherothemic treatment: personal statistics. COLLINS. Mar. med. 9 3, lxx, No.

Military and Naval Surgery

Military surgery. G. M. BLACK. Am. J. Surg. 9 3, xxvii, 84.

Experiments in military surgery. P. CLAIRMONT. Wien. klin. Wchnschr. 9 3, xxvi, 63.

The action of bullets. TILLY. Chir. arch. Vélaminova, St. Petersburg, 9 3, xxi, No.

Gun-shot injuries of blood vessels. LOTZ. Deutsche chir. Kong., 9 3.

Gun-shot injuries in civil practice. N. A. POWELL. Canad. J. M. & S. 19 3, xxix, 322.

Wounds by modern fire-arms. PROCU. Bull. et méém. Soc. de chir. de Par. 9 3, xxvii, 614.

Anatomical changes caused by passing projectiles; based on experiences of the war of 1901-1905. G. E. SCHWARTZ. Volcano-med. J. St. Petersburg 9 3, xxxviii, 94.

Experiences with the manual dressing in the Serbo-Turkish war. STRELLER and VINCIG. Cor. Bl. f. schweiz. Ärzte, 9 3, xlii, No. 9.

GYNECOLOGY

Uterus

Investigations of the endometrium, the histologic changes incident to benign affections of the endometrium corporis. S. KJØGAARD. Kjøbenhavn 9 3. [314]

The cells of the endometrium which take up the carmalum in physiological injections. P. BOOTH and P. ANDER. Compt. rend. hebdom. Soc. de biol., Par. 9 3, lxxv, 728.

The blood vessels of the uterus during the menopause. SCHALOW. J. allgem. L. jew. böhm. St. Petersburg, 9 3, xxvii, 549.

A voluminous calculus which enclosed the uterus and simulated neoplasia. KOVACS. Gazz. d. osp. d. clin., Milano, 9 3, xxvii, 236.

Cancer of the uterus. R. M. RAWLS. Med. Rec., 9 3, lxxviii, 893. [315]

Clinical study of uterine cancers observed in the gynecological consulting room of the Institute. LEMAY. Siglo med. Madrid, 9 3, lxx, No. 3707.

Statistical contribution on uterine carcinomas. OSVATA. Arch. f. Gynäk., 9 3, xxi, No. 3.

Some observations on carcinomas of the uterus. S. W. BORDAT. Internat. J. Surg. 19 3, xxvii, 39.

Operative indications in cancer of the uterus. J. L. F. VALL. Arch. mens. d'obst. et de gynec., 9 3, lxx, 324.

The present status of the radical abdominal operation for cancer of the uterus. R. PETERSON. Surg., Gynec. & Obst., 9 3, xvi, 501. [313]

Non-surgical treatment of cancer. A. THEILHARDT. Berl. klin. Wchnschr. 19 3, lxx, 348. [315]

X-ray treatment in carcinomas of the uterus, of the main body gland, and of the ovaries. G. KLEIN. München. med. Wchnschr. 9 3, lxx, 995.

Diffuse adenomyomatosis of uterus and rectum. E. FORTUZZ and G. MAMMARI. V. Paris. méd., 913, lxx, No.

- Data furnished by the cystoscopic exploration in cancer of the cervix. HARMANN Paris méd. p. 13, 4, No. 52.
- Varied influences of mesothorium cysts on cervical cancer. S. MINOWA. Therap. d. Gynäk. art. 9, 3, 117-142. [316]
- The cavity in the radical treatment of cancer of the cervix. WISNIA. Surg., Gynec. & Obst., 19, 3, xvi, 579. [316]
- Benign invasion of the uterus and oviducts by chorio-epithelial elements. F. DAKIN. Bull. Acad. roy. de méd. de Belg., Bruxelles, p. 13, xxvii, 98.
- Myomatous uterus associated with bilateral inflammation of the adnexa and left pyometra. WUNDERLICH. München. med. Wochenschr., 19, 3, 15, 32.
- Röntgenotherapy in myomata and fibroses of the uterus. HILGER. München. med. Wochenschr. 9, 3, 14, 7.
- Fibromyoma teri. W. P. HEAL. N. Y. M. J. 9, 3, xxvi, 92.
- Röntgenotherapy of uterine fibromyomata. CALA TAYLOR. J. de med. Brux., 9, 3, vii, 1. and Rev. esp. de electr. y radiol. méd. Valencía, 9, 3, 4, No. 4.
- Organotherapy for uterine fibroids and uterine fibromyomata. W. J. N. Verdel. Tijdschr. Geneesk. Amsterdam, 19, 3, 4, 1.
- Etiology and treatment of uterine hemorrhages. L. HINCK. Monatsschr. f. Geburtsh. Gynäk. 9, 3, xxvii, 450. [317]
- Sclerosis of the uterus (arteriosclerosis uteri) and its relation to uterine hemorrhages. BUEHLER. Arch. f. Gynäk. Berl. 9, 3, xxix, No. 3.
- Treatment of metritis by high-frequency current electric cautery. P. CORNIGER. Bull. off. Soc. franc. d'électrothérapie et de radiol. p. 13.
- The treatment of dysmenorrhea. M. GOECHHOEFT. Fortsch. d. Med. Berl. 9, 3, xxx, 540.
- The treatment of pseudo-embryonic dysmenorrhea. A. F. FLORENCE. Bull. méd. Par. 9, 3, xxvii, 46.
- Treatment of menorrhagia. FRIED. Deutsche med. Wochenschr. 9, 3, xxvii, 675. [317]
- Practical application of electricity as therapeutic agent. Amenorrhea, dysmenorrhea, and hematoecia. J. R. ELLER. Med. Summary 9, 3, xxv, 69.
- Uterine hemorrhages and its treatment. F. A. HANSEN. Med. Council 9, 3, xvii, 73.
- Medical treatment of uterine hemorrhages. G. BAST. Med. Klin. 9, 3, 11, 670.
- Uterine hemorrhages and the electric treatment. MAX RIE. bad. med. Zeitschr. 9, 3, xvi, No. 900.
- X-ray therapy in uterine hemorrhage. A. FOCKE. Wien. med. Wochenschr. p. 13, lxi, 905. [317]
- The treatment of uterine hemorrhage by means of the Röntgen rays. G. E. FRANKEL. Am. J. Obst. N. Y. 9, 3, lxxv, 860. [317]
- X-ray therapy or vaporization in the treatment of hemorrhagic metropathy. FOCKE. Monatsschr. f. Geburtsh. u. Gynäk. p. 13, xxvii, 466. [318]
- Surgical treatment of uterine hemorrhages from the non-pregnant uterus. W. KROHN. Am. J. Obst. N. Y. 9, 3, lxxv, 865.
- The operative treatment of cervical dropsy. VINCIGLIONE. Chir. Arch. Venedigiana, St. Petersburg, 9, 3, xxx, No. 2.
- Congenital anteflexion of the uterus. POGGIO. Bull. med. Par. 9, 3, xxvii, No. 35.
- End results of my operation for retroflexion of the uterus. EDWARD. Wien. med. Wochenschr. p. 13, lxi, No. 1.
- The disadvantages of entrodiaction. ALLMANN. Zentralbl. f. Gynäk. 9, 3, xxvii, 640.
- Myometomy. JACOBOWITZ. Revista de chir. p. 13, l, N.
- A perforation of the fundus uteri. ROBERTER. Deutsch. med. Wochenschr. f. Gynäk. Halle 9, 3, 11.

- Perforation of the uterus resulting from craniol. abortion. ANGE. Monatsschr. f. Geburtsh. Gynäk. Berl. 9, 3, xxvii, 70.
- A rare case of uterine traumatism. MALY. Zentralbl. f. Gynäk. 9, 3, xxvii, No.
- Removal of danger of peritonitis by the operative treatment of ruptured uterus. SEGWART. Deutsche Gesellschaft f. Gynäk. Halle, 9, 3, May. [318]
- Abdominal hysterectomy by anterior ablation in cases of bilateral pyometra. H. BAUMERT. Tourn. méd. p. 13, 45.

Adnexal and Peritoneal Conditions

- Ovarian secretion. review. A. L. MILLER. J. Obst. & Gynec. Brit. Emp. 9, 3, xxi, 865.
- Conservation of ovarian tissue and its power of compensation. D. F. LEE. Indianapolis M. J. p. 13, xvi, 210.
- Study of the ovum of the guinea-pig in the first stages of embryogenesis. H. LANGE. Arch. de biol. Gené., p. 13, xxvii, 59.
- Development of the ovum in Podarcus agassizii. L. DE WITTE. Arch. de biol. Gené., 19, 3, xxvii, 19.
- The ovarian function in Beardow's disease. O. FAY. Deutsche Gesellschaft f. Gynäk. Halle 9, 3, May. [318]
- Ovarian dyspepsia. H. G. WILSON. Practitioner Lond. 9, 3, 11, 807.
- Anatomical study of four ovarian grafts in man. TOFFER and VIGIER. Bull. et mémoires Soc. anat. de Par. 9, 3, lxxvii, 148.
- The ectopic ovarian graft and its clinical value. B. WILHELMOWITZ. Chir. J. 9, 3, xli, 97. [319]
- The conditions of stimulation of the ovary by X-ray. ROUSSIN and LACAMARIE. Compt. rend. hebdom. de la Soc. de Biologie, 19, 3, lxxv, 783. [319]
- The clinical significance of points of follicular rupture in the ovary. COHEN. Arch. f. Gynäk. 9, 3, xxi, No. 2.
- A case of post-partum pyometra. OPIE. Fam. prakt. med. handb., Nottingham, 1913, 19 April.
- A note on typical collection of ovarian cysts. J. BLAND-SUTTON. Universal M. Rec. 19, 3, 14, 545. [319]
- Ovarian cyst with twisted pedicle. O. B. WICKER. North. Brit. Med. 9, 3, 140. [319]
- Dermoid cyst of the right ovary containing teeth, demonstrated by radiography and simulating stone in the right ureter. GOSSET. Bull. et mémoires Soc. chir. de Par. 9, 3, xxxii, 707.
- Tubo-ovarian cysts. E. TILMANT and A. RIVIER. Progres. méd. Par. 19, 3, xxi, 203.
- The disadvantages of conservative operations for ovarian cyst. SCHOLZ. Arch. mens. d'obst. et de gynec. Par. 19, 3, 2, No. 4.
- A case of inoperable multicystic cyst of the ovary in young girl. D. M. CORNELL. Physician & Surg. 19, 3, xxi, 500. [320]
- Primary cancer of the ovary. MANSOUR and ESTÉPHER. Rev. de gynec. et de chir. abdom. Par. 19, 3, 11, No. 3.
- Case of adeno-carcinoma of the right ovary developing later in the left. Operations recovery. W. P. CARR. V. M. Semi-monthly 9, 3, xvii, 9.
- Pathology and therapy of inflammatory diseases of the uterine adnexa. FALGOUT. Gaz. Méd., Vienne, 2, 9, 3, xxvii, 1. and Gynäk. Rundschau, 1913, 4, No. 1.
- Primary malignant neoplasms of the fallopian tube. F. B. GYNN. Canad. M. Ass. J. 19, 3, 14, 350. [320]
- Hemorrhoids of the broad ligament caused by rupture of tubal pregnancy. H. P. STOUT. Rev. prat. d'obst. et de gynéc. Par. 9, 3, xxi, 75.
- A case of extra-peritoneal adenomyoma and its cases of intra-peritoneal myomata of the round ligament. 114

OBSTETRICS

Pregnancy and Its Complications

A case of full term ectopic gestation with dead foetus retained in the abdominal cavity for eight months. R. PATTISON. *Physician & Surg.* 9, 3, xxiv, 98. [126]

A case of pregnancy six years after pectol operation for postperitoneal inversion of the uterus. NIKOLAI. Zentrbl. f. Gynäk. 9, 3, xxiv, 330. [126]

Clinical data on extra-uterine pregnancy. CAHAGIAN. A. BOCALOVA. J. kish. i. yash. bolice. St. Petersburg, 9, 3, xxiv, April.

Diagnosis and treatment of extra-uterine pregnancy, also communications as to regard to unoperated cases of over one hundred operable cases. MICHUR. Theop. d. Gynäk. Berl. 9, 3, iv, No. 5.

A concomitant extra-uterine and intra-uterine pregnancy. J. M. RIVIERE. de cher. 9, 3, No. 1.

A case of full term extra-uterine pregnancy (b. living child). N. G. KRASNOVOLA. Russ. Monatsh. f. Geburtsh. Gynäk. 9, 3, xxiv, 223. [126]

The treatment of intra-uterine pregnancy. FALA. Arch. f. Gynäk. Berl. 9, 3, xxiv, No. 3.

Coincidence of (tubal) and uterine pregnancy. CL. VERIS. Normandie med. Rouen. 9, 3, xxiv, No. 9.

Full term pregnancy as an accessory case of bicornuate uterus. HOLLANDER. Arch. mens. d. obs. et de gynec. 9, 3, 303. [126]

Interstitial pregnancy. STERN. Zentrbl. f. Gynäk. 9, 3, xxiv, 375. [127]

Young ovarian pregnancies. P. COY and DUBOIS. L'Echo med. du Nord. Lille, 9, 3, xi, No. 20.

Total ablation of the uterus associated with multiple chorionitis during pregnancy. THAKARA. Ann. J. kish. yash. bolice. St. Petersburg. 9, 3, xxiv, April.

Carcinoma of the uterus in pregnancy. FLOREN. Med. et Massacher. Verh. en. Verh. en. Kindergeen. Amsterdam. 9, 3, 8.

Pregnant uterus of three months associated with large portocarcinoma causing foul discharge. WETTERBERG. München. med. Wchnsch. 9, 3, iv, 3.

Mittelschlag in the treatment of placenta previa. P. GALL. Zentrbl. f. Gynäk. 9, 3, xxiv, 334. [127]

The toxaemia of pregnancy. W. G. DALLING. Wm. M. J. 9, 3, xi, 375.

Pregnancy-venous, therapy of pregnancy toxaemia. W. REINSTEIN. Deutsche. med. Wchnsch. 9, 3, xxiv, 94.

Symptoms and pathology of eclampsia. J. M. BOCK. Hosp. Bull. Ind. 9, 3, xi, 41.

Eclampsia and its treatment. L. L. LITTLE. Southern M. J. 9, 3, iv, 23.

Carbohydrate metabolism in pregnancy and in eclampsia, few words concerning the mechanism of the liver. W. C. BENTLEY. Monatsh. f. Geburtsh. Gynäk. 9, 3, xxiv, 305. [127]

Researches on postperitoneal eclampsia. CURRIE. Epilepsia. 9, 3, iv, 94. [127]

The toxicity of urine during the puerperium and in eclampsia. ZIMMER. Zentrbl. f. Gynäk. 9, 3, xxiv, 43. [127]

The state of vascularity of the blood in eclampsia as well as in other affections and lesions of the female organism. KRAUSCH and ERMER. Gynäk. Rundschau. Berl. 9, 3, vi, No. 9.

Cæsarean section. J. M. WILSON. Southern M. J. 1913, vi, 334.

The classical Cæsarean operation. KONTAKOFF. Vrach. Gaz. St. Petersburg, 19, 3, xi, No. 7.

The technique of the Cæsarean section. J. VERT. Zentrbl. f. Gynäk. 9, 3, xxiv, 94.

Cæsarean section because of vaginal stenosis following previous operations for anal fistula. BRODIE. C. Zacher. f. Gynäk. f. L. Leipzig, 9, 3, iv, No. 2.

Cæsarean section in special reference to the rare indications for the operation. W. H. MAXWELL. Brit. M. J. 9, 3, i, 95.

The Cæsarean operation upon the dead and upon the living. KIRKNER. J. kish. yash. bolice. St. Petersburg. 19, 3, xxiv, April.

The results obtained with the Cæsarean section in Russia during the last twenty-five years. FOMINOV. Zentrbl. d. Gynäk. 9, 3, xxiv, No. 1.

The treatment of abortion. E. B. HOWELL. J. M. J. 9, 3, xiv, 556.

Consideration of the treatment of abortion. R. F. ZURR. Ch. Gynäk. 9, 3, xv, 30. [126]

The treatment of septic abortion. ALBERT. Rev. suisse de med., 9, 3, xvi, No. 3.

End results of the conservative treatment of streptococcal abortion. M. T. COOT. Deutsche Gynäk. f. Gynäk. Halle 19, 3.

Pregnancy delivery and postpartum in extensive hemilateral pelangiomas with formation of anovous virus associated with lymphangiosarcoma. DERRA. Berl. klin. Wchnsch. 9, 3, i, No. 7.

Pregnancy during leucemia and its influence on the composition of the blood. G. J. MISTAKOFF and G. T. KONTAKOFF. Russk. Vrach. 9, 3, xiv, 304. [126]

A case of severe endometritis in pregnancy. ALBERT. Deutsche Gynäk. f. Gynäk. Halle, 9, 3.

The treatment of pregnancy pyrexia. BACONNET. Nedert. J. kish. Genera. Amsterdam. 9, 3, i, 319. [126]

Phlebotomy of pregnancy. L. F. P. Paris. cher. 9, 3, No. 2.

Cholecystitis and cholelithiasis associated with pregnancy. R. M. GALT. Boston M. & S. J. 9, 3, diva, 679. [126]

Adelson's disease and pregnancy. E. VOGT. Deutsche Gynäk. f. Gynäk. Halle 9, 3, M.

Pregnancy, labor and puerperium in a case of extensive unilateral telangiectasis and varicose formation with lymphatic elephantes. DERRA. Berl. klin. Wchnsch. 9, 3, i, 779. [126]

Thyroid and pregnancy. E. MORGAN. Deutsche Gynäk. f. Gynäk. Halle 9, 3, May. [126]

Thyroid and pregnancy. GRAY. Deutsche Gynäk. f. Gynäk. Halle, 1912, May. [126]

Changes in the parathyroid glands in pregnancy. ARONSON. Deutsche Gynäk. f. Gynäk. Halle, 9, 3, May. [126]

Disturbances of metabolism in pregnancy labor and puerperium. SCHIZ. Deutsche Gynäk. f. Gynäk. Halle, 9, 3, May. [126]

Heart lesions in pregnancy. KATZ. Deutsche Gynäk. f. Gynäk. Halle 9, 3, May. [126]

Albuminuria in pregnancy. ARONSON. Deutsche Gynäk. f. Gynäk. Halle, 9, 3, M. 7. [126]

Researches concerning the after life of pregnancies complicated by heart and kidney lesions. K. RABEN. Deutsche Gynäk. f. Gynäk. Halle, 9, 3. [126]

The position of the uterus after delivery at term and during the sequelae of immediate and tardy delivery BOCCINI and SAINT BLAISE. *Paris méd* 9 3 No.

Cervix manipulation and uterine inversion. BREUER. *Deutsche med. Wochenschr.* 9 3, xxix, No. 2.

Serological and clinical investigations concerning pregnancy pyrexia. I. Anti-bodies in the maternal and foetal blood in pregnancy pyrexia. W. WINKEL. *Arch. f. Gynäk. Berl.* 9 3, xxix, 245.

A case of hydratiform mole. WETTERBERG. *J. med. d. Brax* 9 3, xix, No. 7.

A case of ectoplacental epithelioma. BASSILI and CECILIORE. *Arch. ginec. de chir. Par* 9 3, vii, No. 4.

Action of the placental extract upon the vascular system and upon blood coagulation. G. COLLE. *Gazz. d. esp. d. clin. Milano* 9 3, xxix, 304. [337]

The effect of hypophysectomy extract (pituitador) M. GROSCHMANN. *Med. Klin.* 19 3, ix, 755.

The treatment of syphilis in pregnant women by means of salvarsan. LIEBOWITZ. *J. d. med. de Par* 1913, xxviii, 35.

Mosberg's method BOULATOFF. *Klinichesky med. J. Kharkov* 9 3, xv, No.

GENITO URINARY SURGERY

Kidney and Ureter

Morphological study of the arteries of the suprarenal capsules in man. G. GIRAUD. *J. de Anat. et de physiol.* Par 19 3, xix, 369.

Suprarenal glands and toxic infections. A. MARIE. *Ztschr. f. Immunitätsforschung u. exp. Therap.* 9 3, xvi, 430.

The relation between chromaffin substance and adrenalin in the suprarenal capsules. W. NOWICKI. *Panfil. chir. i. ginek.* 9 3, vii, 69. [339]

The origin of the hydrate of Morgagni. MACCAGNANI. *Ann. di anat. ginec. Milano* 1913, xxv, No. 4.

The physiology of kidney innervation. LÖNNERSTEDT. *Deutscher chir. Kongr.* 19 3. [339]

The sympathetic relationship of the kidney. CATTELL. *Brill. med. Par* 9 3, xxviii, No. 30.

Secretion of leucoglobulin through the kidneys. R. RUMERT. *Zentralbl. f. allg. Path. path. Anat.* June 19 3, xxv, 24.

The renal origin of certain leucoglobulins in children. GAUFROUX. *Rad. med. Marseille* 9 3, xvi, 1000.

So-called essential haematuria. I. SCHREIBER. *Ztschr. f. urol. Chir.* 9 3, 4, 270.

The arteries of the healthy and of the diseased kidney in the X-ray picture. H. UCH. Forstner. *d. Geb. d. Röntgenstr.* Hamb. 913, xi, 2.

The weight of the kidney in the various surgical affections of this organ. CATTELL. *Paris chir.* 9 3.

Radiodiagnosis of pseudo-calcin of the kidney. M. PAVONI. *Arch. d'elect. med.* Bordeaux 9 3, xxi, 34.

Renal and urethral calculi. I. ARZEL. *Ky. M. J.* 9 3, xi, 406. [340]

Subperitoneal rupture of the kidney. 24th report of cases. A. H. MARZALL. *Lancet-Clin.* 9 3, cxi, 473. [340]

The physical treatment of floating kidney. L. FELLNER. *Ztschr. f. Balneol. Klimatol. Kurort Hyg.* 913, 7.

Experimental researches on tension of the kidney. G. RAZZANOVI. *Pathologica* 9 3, 30.

The clinical significance of malformations of the kidney the renal pelvis, and the ureters. C. ARZAN and A. ON. LICHTENBERG. *Ztschr. f. urol. Chir. Leipzig* 913, 1.

30. Inflammation and infection of the renal pelvis. VORLICKER. *Ztschr. f. urol. Chir. Leipzig* 9 3. [340]

Colon bacillus infection of the kidney. W. VON. MED. REC. 9 3, xxxii, 654.

Diagnosis and treatment of bilateral renal tubercula. C. PERRIER. *Rev. med. de la Suisse Rom.* 913, xxxix, 35.

The medical treatment of renal tubercula. O. URON. *J. d. med. de Bordeaux* 19 3, xxi, No. 2.

Tuberculosis in the treatment of urinary tubercula. BARRERA. *Ann. d. Acad. y Lab. de clinic. med. de Catalunya*, Barcel., 913, vi, No. 4.

A case of post-operative sepsis postseptis. BATTEN. *Ztschr. f. Gynäk. Urol.* 1913, iv, No. 3.

Symptoms of intestinal occlusion in nephritic colic. GRIFFO. *Brill. med.* 19 3, xxviii, 307. [341]

A case of right intermittent hydrocephalus provided by its accessory renal arteries; operation with removal of these vessels, recovery. ALLEMAN. *Nord. med. Ark. Stockholm* 19 3, xiv, May.

Primary tumors of the renal pelvis. MOCK. *J. d'uro. Par* 9 3, li, 5.

Complex tumor of the kidney, associated with nodules of hypernephroma. ROWE. *Folia urol. Lipsa* 1913, 4, No. 2.

Epithelioma of the kidney of the fetal type. MÖLLER and BARRY. *Lancet* 1913, xxix, No. 3.

The structure and histogenesis of congenital kidney neoplasms. DUBOIS. *Ztschr. f. Gynäk. Urol.* 913, iv, 45. [341]

Perineal haematomas. SCHLICK. *Surg. Gynec. & Obst.* 913, xvi, 570. [342]

Voluminous cysts of the kidney. Cystostomy in addition to nephrectomy as treatment for very advanced renal-vesical tuberculosis. PASQUETEAU. *Gaz. med. de Nantes* 9 3, xxxi, 2.

Large solitary cysts of the kidney. H. MURPHY. *Ztschr. f. urol. Chir.* 913, 4, 295.

Haemorrhagic cyst of the kidney, across cyst of the kidney. GILLMAN. *J. d'uro. Par* 913, iii, 5.

Preliminary report upon the use of x-ray-catheter in the study of renal function. H. D. I. CURTIS. *Surg. Gynec. & Obst.* 9 3, xvi, 307. [342]

The value of pyelography in the diagnosis of surgical diseases of the kidney. I. L. KATZ. *Ann. M. J.* 9 3, xvi, 4.

Acute apical infection of the kidney and its surgical treatment. I. JOSEPH. *Urol. & Cutan. Rev.* 9 3, xvi, 342.

Experiences with the transplantation of kidneys. M. G. TRILL. *Gazz. d. esp. d. clin. Milano* 9 3, xxxv, 2.

Decapsulation of the kidney. WARTENBERG. *Chir. arch. Vichitovna*, St. Petersburg 913, xxxi, No.

Renal function after decapsulation of the kidney. L. V. REYER. *J. de Physiol. et de Pathol. gén.* 9 3, xv 24. [131]

Anatomical lesions of the kidney following artificial occlusion of the ureter. KAWAMORI. *Ztschr. f. gynäk. Urol.* 9 3, i No. 3.

Contribution to the study of calculi of the intraparietal portion of the ureter. PASCAU. *J. d'Urol.* 19 3, ix, 447. [143]

Calculi of the right pelvic ureter. NOZAKI. *Lyon méd.* 19 3, cxi, No. 10.

An instance of large ureteral calculus and some other cases of calculi. G. WUNDER. *Brit. M. J.* 9 3, i, 1043.

Incorperated ureteral calculi. E. BOWEN. *Beitr. z. klin. Chir.* 9 3, lxxiv, 94.

Impacted ureteral calculi relieved by ligature. H. D. FORTNEY. *J. Am. M. Ass.* 9 3, ix, 334. [144]

Passage of ureteral stones after extra-ureteral manipulations. J. L. RANSON. *Lancet-Chir.* 9 3, cxi, 537.

Bilateral ureterolithotomy in calculus noma. A. LAURE. *Beitr. klin. Chir.* 9 3, lxxiv, 4.

Hematuria. A. C. PENDER. *N. Y. M. J.* 9 3, xcvi, 905.

Infections of the upper urinary tract in infancy and childhood. R. M. GREEN. *Boston M. & S. J.* 9 3, cxxvii, 695.

Case of ureteral abscess. W. A. JACK. *Wash. M. Ann.* 1913, ix, 79.

Congenital fistula of the ureter. UREA and BARRAL. *J. d'Urol.* Par. 9 3, xli, N. 5.

Congenital pocket of the ureter showing tardy development. TADYKOV. *Lyon chir.* 9 3, li, N. 5.

A case of anomalous position of the ureteral orifices. UREA and SAINT MARTIN. *Toulouse méd.* 9 3, xv No. 8.

Extravesical orifice of the ureter in women. HARTMAN. *Hosp. Ind., Kjobenh.* 9 3, lvi No.

Accessory ureters. A. P. WITTE. *Deutsche Ztschr. f. Chir.* 9 3, cxi, 425. [145]

Stenosis of the ureter: their relation to the genital function in men. DE MEO. *Folia urol., Leipz.* 9 3, vii, N. 6.

The effect of thyrotoxinemia in stenosis of the ureter. LÉVY WEISSMANN. *J. d'Urol.* Par. 9 3, li, No. 5.

Swelling of the ureters after Pavlik's method. J. PETRYVSKY. *Cas Ml. Cesk.* 9 3, lx, 303.

Preparing an intraparietal course for the urinary ducts. BOLYJES. *Beitr. klin. Chir.* 9 3, lxxiv, No. 2.

Implantation of the ureters into the large intestine. LÉVY. *Chirurgie, Par.* 9 3, li, N. 10.

The local treatment of retention of urine and pus by means of ureteral catheterization. ZUCKER. *Wien. med. Wchnschr.* 9 3, lxxv, N.

Bladder Urethra, and Penis

The permeability and absorbent power of the bladder. NICHOLSON and NOWICKA. *J. de physiol. et de path. gén.* 9 3, xv 306.

Some reflections suggested by bladder case. T. W. LAWSON. *Chir.* 9 3, xli, 75.

Vesical hernia. M. GREGORY. *Beitr. z. klin. Chir.* 9 3, lxxiv, 93.

An enormous calculus of the bladder. LOTHAR and DELAYE. *Cas. heb. d. sc. méd. d. Bordeaux.* 9 3, xcvi, No. 9.

Diabetes and vesical calculus. GOLDREDO. *Med. Kha.* 9 3, ix, No. 7.

An extraordinary calculus formed about foreign body. G. W. MALT. *Ztschr. f. gynäk. Urol., Leipz.* 9 3, i, 30.

Surgery of stone of the bladder prostate and ureter. STREUMER. *Folia urol., Leipz.* 9 3, vii No. 5.

Congenital diverticulum of the bladder with contracted orifice. BOWEN. *J. d'Urol.* Par. 19 3, li, No. 5.

Cystoscopic pictures of fibrosis of the bladder. JOSEF. *Deutsche Ges. f. Gynäk. Halle.* 9 3.

Syphilis of the bladder. LÉVY BISSO and DUBOIS. *Ann. d. mal. vener.* Par. 9 3, vii, 24.

Syphilitic affections of the bladder. R. DICK. *Orvosi hetil. Budapest.* 9 3, lvi, 56.

Gonorrheal cystitis. R. C. STODOL. *Gaz. intern. di med., chir. Ig., Napoli.* 19 3, No. 23, 299.

Simple ulcer of the bladder. BUCKNER. *Folia urol., Leipz.* 9 3, vii, No. 9.

Simple ulcer of the bladder. LEONET. *Progrès méd.* Par. 9 3, xli, N. 19.

Therapeutic fistulization of the bladder. LOYNE. *J. d. med. d. Bordeaux.* 9 3, xlii, No. 7.

Five cases of bladder growth. H. T. MERRILL. *Trans. M. J.* 9 3, vii, 246.

Removal of carcinomatous urinary bladder by transplantation of both ureters. SAKS. *Wien. M. Wchnschr.* 9 3, xli, 563.

On the question of the so-called implantation relapse after removal of papilloma of the urinary bladder. SAKS. *Arch. d. chir. Klin. d. Prof. Fedoroff in St. Petersb.* 9 3, vii, 25.

Some cases of retarded vesical distention after suprapubic prostatectomy. TRIVINOV and LACABAGNE. *J. d'Urol.* Par. 9 3, li, No. 5.

Removal of a mass of chewing gum from the bladder. J. O. RICE. *Am. J. Urol.* 9 3, ix, 36.

The value of intra-canal operations. KILLIAN. *München. med. Wchnschr.* 9 3, li, 606.

Coccygostomy. MARSHALL. *Riforma med.* 9 3, xii, No. 1.

Further remarks on hypogastric lithotomy of the compound bladder. LASTARIA. *Presse méd.* Par. 9 3, xli, N. 44.

Some indications for suprapubic cystostomy. L. GORDON. *Am. J. Urol.* 9 3, ix, 213.

The treatment of post-operative retention of urine. REINCK. *Norvold and St. Petersb.* 9 3, vii No. 5.

Stricture of the urethra. A. W. NIELSEN. *Lect. J.* 1913, lxix, 38.

The effects of posterior urethral inflammation centered in the colliculus. P. OLSOWSKI. *Urol. & Cutan. Rev.* 9 3, xli, 54.

Gonorrheal urethritis anterior: its treatment, with special reference to abortive measures. A. L. RACH. *Practitioner Lond.* 9 3, ix, 241.

Diagnosis and treatment of gonorrheal affections. general practice. P. MULLER. *Sprayer Berlin.* 9 3, cxxvi, 181.

Communications on gonorrhea. BRANDEIS. *Arch. Merck's Arch.* 9 3, xv, 46.

Para-urethra. J. L. HERMAN. *N. Y. M. J.* 9 3, xcvi, 90.

Some plastic operations on the penis and prethra. A. FOWLER. *Am. J. Urol.* 9 3, ix, 229.

Technique of external graculoplasty in the male. BOSTON and DARTMOUTH. *Presse méd.* 9 3, xli, 92.

Mentostomy: simple method. H. L. LEE and SCHWARTZ. *J. Am. M. Ass.* 9 3, ix, 330.

An instrument for radical removal of pilosities. H. SPRITZ. *München. med. Wchnschr.* 9 3, ix, 975.

Genital Organs

The pathology of ectopy of the testicles. L'ERRICCI
Arch. f. klin. Chir. 93 d, No.

Torsion of the testicle. SOCHET. Chirurgia, 93
xxii, 5 [346]

Torsion of the testicles and the rôle of trauma as cause
Miyata. Arch. f. klin. Chir. 93, d No.

A case of chorion-epithelioma of retained testis with
multiple metastatic growths with notes on the etiology
and pathology of chorion-epithelioma. T. S. TITCHWELL
Practitioner Lond. 93 xi, 84.

Orbitals of the new-born and infants. P. V. and
MARTIN. M. n. n. n. 93 i, No. 6.

Acute rheumatic orbitals report of case associated
with erythema nodosum and acute testiculitis in child
aged 18 and one half years. M. H. BASS. J. Am. M.
Ass. 93 i, 606.

Infection of the epididymis, claimed as secondary
symptom of an accident. WAGNER. Med. Klin. 93
iv, No. 30.

A suggestion for the improvement of the technique of
illumination of hydroceles. P. A. GUTCHINOW. Volnomo-
med. J. St. Peterb. 93 cxxvii.

The employment of autoserotherapy in hydrocele
ZNAJENK. Zh. khir. i urol. Berl., 93, vi, No. 5.

Operative treatment of varicoc. GOSSET. R. h. b. d. de
chir. 93, No.

A roentgen-radiography of the seminal ducts. W. T.
RENFELD. Surg. Gynec. & Obst., 93, xvi, 508 [346]

The prostatic gland and the origin of the corpora prostatica
and of prostatic hypertrophies. G. HIRANO
Gaz. internaz. di med. Napoli. 93, xxv, 137.

Carcinoma of the prostate. A. L. WOODWARD. Inter-
nat. J. Surg. 93, vi, 64.

Carcinoma of the prostate (case report). Zentralbl. f. d.
Grengeb. d. Med. Chir. 93, xiv, No. 5.

Hypertrophy of the prostate. J. M. CLAUDE. N. Y.
M. J. 93, cxi [347]

The treatment of prostatic hypertrophy. J. R. C. 13.
Tex. M. J. 93, 13.

A year of surgery of the prostate. WILSON. Med. Klin.
93, ix, 69.

Prostatectomy in the aged, his report of 16 consecu-
tive cases sixty years of age. H. A. MOORE. J. Indiana
St. M. Ass., 93, vi, 306.

The physical and intellectual changes after prostatec-
tomy. LACROIX. Bull. med., Par. 93, xxvi, 387.

Two cases of ulcerative granuloma of the prostatic ap-
pendix cured by means of neomycin. SABELLA. Polich.
Roma, 93, xi, No. 5.

Total evulsion of the skin of the male genital ap-
pendix. BERGSTRÖM. Nord. med. Ark., Stockholm, 93, xiv, May.

Miscellaneous

Radiographic examination of the urinary tract. F.
LEIGHTON P. PERRY and G. MARSHALL. Gaiter. Paris, 93
[347]

Experimental investigations on bacterium coli infection
of the urinary organs. O. HISS. Mitt. u. d. Grenzgeb. d.
med. Chir. 93, xxvi, 35.

The solubility of the principal stone forming elements in
the urine. LICHTWITZ. Zschr. f. exp. Path. Therap.,
93, xii, No. 2.

Tuberculin in the treatment of genito-urinary tuber-
culosis. C. A. COLMAN. Ohio St. M. J. 93, iv,
37.

Prophylactic or chronic buboes. A. J. J. THURNO. Aus-
tralia. M. G. 93, xxxii, 447.

Significance of bacteriologic following operations on the
urinary tract. MARION. J. d' urol. re. j. m. 93, [348]

Unusual people learn why it sometimes fails. R. A.
BACON. J. Am. M. Ass. 93, ix, 6 [349]

Masturbation—injurious or harmless. W. J. ROSS.
Am. J. Urol. 93, 18.

An unusual condition causing impotence in the male.
A. C. WALKER. Am. J. Urol. 93, 12, 5.

Sexual impotence in the male. A. BUCH. Am. J. Urol.
93, 12, 54.

Hemorrhoidectomy specimens. D. S. LANE. Wash. M.
Ass. 93, xii, 73.

SURGERY OF THE EYE AND EAR

Eye

Apoplexy of the upper eyelid in child of eighteen
months, cured by bipolar electrocoagulation. DOUGHERT. Ann. d.
Acad. J. Lab. de conc. med. de Catalunya, Barcel. 93, vi,
N. 4.

A case of pigmented sarcoma of the eyelid. TAMAM.
Chir. Rusk. V. ch. St. Peterb. 93, xii, N. 5.

Treatment of disturbances of vision in acromegaly
(operation on the caudal opticus). SCHLOFFER. Deutsch. ch.
Kong. 93, 2.

Serious injuries of the eyes and the face by so-called
ster-core and sodic acid bulbs. OHLER. N. Y. M. Ass.
therap. Wochenschr. 93, xii, No. 30.

On unconsensual injured 5. MITCHELL. Ophth.
Rec. 93, xiii, 145.

The eyes in cases of general infection. J. D. DOUGLASS.
Eckst. M. J. 93, lxvi, 24.

The relation of accessory cavity disease of the eye and
the orbit. E. BROWN. Ohio St. M. J. 93, iv, 207 [349]

The influence of chronic sepsis upon eye disease. W.
L. LACROIX. Lond. 93, ch. xvi, 364 [349]

Streptococcal infection of both eyes. F. W. FRANK.
MAYNARD. Penn. M. J. 93, xii, 646.

Tuberculosis of the eye and tuberculous. ZIMMERMAN.
Med. Woch. Berl. 93, xii, No. 9.

Enucleation on account of sympathetic ophthalmia.
DR. PERRY. Rev. Neuro-ophth. de conc. med. 93,
xiii, N. 704.

The incidence of ophthalmia neonatorum in London.
N. B. MARSH. Brit. M. J. 93, 199.

The use of sodium in eye infections. J. G. DUTT.
Arch. Ophth. 93, xii, 27 [349]

Removal of the conjunctiva in case. SEAMSTER. N. Y. M. Ass.
J. 93, lxvi, de chir. 93, i, N. 1.

Development of membrane tertia. His reference to
structure and function. C. W. PIERCE. Am. J.
Urol. 93, xiv, No. 4.

Hypopyon ulcer of the cornea and its treatment. C.
M. HARRIS. Penn. M. J. 93, xvi, 6, 1.

OCTOBER 1913

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH

Journal de Chirurgie, Paris

Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete Berlin

Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete Berlin

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER Berlin

B. G. A. MOYNIHAN Leeds

PAUL LECÈNE, Paris

EUGENE B. TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J. DUMONT Paris

EUGENE JOSEPH Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wylie Andrews Willard Bartlett Frederick A. Besley Arthur Dean Bevan J. F. Blatch George E. Brewer W. B. Brumhead John Young Brown David Cheever H. R. Chislet Robert C. Coffey F. Gregory Connell Frederick J. Cotton George W. Crile W. R. Cabbins Harvey Cushing J. Chalmers DaCosta Charles Davison D. N. Elsendraht J. M. T. Finney Jacob Frank Charles H. Frazier Emanuel Friend Wm. Fuller John H. Gibbon D. W. Graham W. W. Grant A. E. Halstead M. L. Harris A. P. Helmesck William Hoesert Thomas W. Huntington James N. Jackson E. S. Judd C. E. Kahle Arthur A. Law Robert G. Le Conte Dean D. Lewis Archibald Mackenzie Edward Martin Rudolph Matas Charles H. Mayo William J. Mayo John R. McDevitt

(Editorial Staff continued on page viii. and)

Editorial communications should be sent to Franklin H. Martin Editor 31 N. State Street, Chicago

Editorial and Business Offices: 31 N. State Street, Chicago Illinois, U. S. A.

Publishers for Great Britain: Baillière Tindall & Cox, 8 Henrietta St. Covent Garden, London

TABLE OF CONTENTS

I. INDEX OF ABSTRACTS OF CURRENT LITERATURE	i
II. AUTHORS	vii
III. ABSTRACTS OF CURRENT LITERATURE	381-471
IV. BIBLIOGRAPHY OF CURRENT LITERATURE	472-496

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGERY OF THE HEAD AND NECK

Head	
TUYFER: Traumatic Facial Hemiparesis	38
EARL: The Limitations and Possibilities of X Rays in Skull Diagnosis	38
BROWN: The Diagnostic Evidence Obtained by X Rays from the Lateral Aspect of the Skull (with Especial Reference to the Base and Its Adjacent)	38
MARCHAND: Traumatic Epilepsy	38
SHIMOWITZ: The Autoplastic Closure of Dural Defects	38
WISNIEWSKI: The Operative Treatment of Hydrocephalus	38
ARCHBOLD: Fracture of the Corpus Callosum	383
Neck	
POGOLOTTI: Is It Always Possible to Avoid the Facial Tarsus of the Cervico-Facial Branch of the VIIth Pair in Operations on the Submaxillary Gland?	383
HALPERIN: The Thyroid and Parathyroid Problem	383
TATUM: Morphological Studies in Experimental Cretinism	384
KUHN: The Frequent Occurrence of Mild Cases of Basedow's Disease and the Favorable Influence Exerted upon Them by Hygienic-Climate Factors	384
MANNABRO: As Atempt to Influence Basedow Disease by X Rays Applied to the Ovaries	384
SCHLOFFER: The Operative Treatment of Basedow Disease	384

SURGERY OF THE CHEST

Chest Wall and Breast	
ALBERT: The Internal Secretion of the Mammary Glands	385
SEIDENBERG: Paget Disease	385
EMERSON: Intracapsular Thoracic Amputation	385
CARSON: Intracapsular Amputation of the Shoulder	385
STERNBERG: Indications and Technique for Artificial Pneumothorax in Pulmonary Tuberculosis	386
STERNBERG: Artificial Pneumothorax for Pulmonary Hemorrhage	386
Pharynx and Esophagus	
BROOK: Case of Epithelial Ulcer of the Esophagus from Case of Chloroform Poisoning	386
TOBER: The First Successful Case of Resection of the Thoracic Portion of the Esophagus for Carcinoma	386

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum	
KUTNER: A Pedunculated Necrotic Tumor the Size of the Fist in the Region of the Umbilicus	387
MACHESON: Biliary Peritonitis without Perforation of the Bile Passages	387
CLAIRMONT and ON HABERER: Remarks to the Contribution of Prof. Nussenzweig and Dr. Lubke Does Biliary Peritonitis Exist without Perforation of the Bile Passages?	388
BARADULIN: Pseudocystic Peritonitis	388
WENDEL: Retrograde Inoculation of the Wound	388
SWETSHENKOW: A Case of Spontaneous Isolated Diaphragmatic Hernia of the Stomach, the Spleen and Loop of Bowel	389
SCHEIDT: The Radical Operation for Intestinal Hernia with Incomplete Hernial Sac Shding Hernia	390
TRE: Sarcoma of the Omentum	390
BEVENS: Chylous Cyst of the Mesentery	390
DRUMMOND: The Surgical Aspect of Persistent Meckel's Diverticulum	390
Gastro-Intestinal Tract	
BORCHGREVINK: Acute Dilatation of the Stomach and Its Treatment	39
NETTLESHAW: Histological Examination of the Mucosa in Ulcer and Carcinoma of the Stomach	39
GUTHRIE: The Relations between Carcinoma and Peptic Ulcer on the Upper Digestive Tract	39
SCHEIDT: The Perforated Gastric Ulcer	39
PALFREY: The Administration of Oil Bile in the Treatment of Hyperacidity and of Gastric and Duodenal Ulcer	39
MAYO: Palliative Operations for the Relief of Incurable Carcinoma of the Stomach	392
CLEMENT: Occlusion in Bilateral Stomach	39
BALFOUR: Anterior Gastro-Enterostomy	393
GOELLIGER: Simultaneous Resection of the Stomach and Transverse Colon, Five Cases	393
MORRISON: Laceration and Closing of the Pylorus (with Omentum)	393
HALL: Duodenal Ulcer	393
BLAU and ALAMARTINE: Accidents and Technique of J-Junction	393
VANDER: Volvulus of the Cecum, Ascending Colon and Initial Portion of the Transverse Colon Death from Intestinal Hemorrhage. a Volvulus of the Pelvic Colon Treated by Simple Unilateral Recurrence; Resection of the Affected Loop Cure	394

KILLGORE Incompetency of the Ileocecal Valve; Disorders Arising from this Condition and Their Treatment 394

OSKI Primary Typhilitis 395

SCHWARTZ Pathology and Therapy of Perityphilitis 395

LAURENCE AND OLIVER The Y Carcinoembryology 395

HIEHL The Origin of Inflammations in the Appendix on the Basis of Bacteriological and Experimental Evidence 397

RJANOFF Anatomical Considerations of Ligamentous Formations About the Proximal End of the Large Intestine: Ligamentum Variciforme 397

GOLDTHWAIT Orthopedic Principles in the Treatment of Abdominal Mesenteric and Chronic Intestinal Stenosis 397

MAYLAND Abdominal Incisions and Intestinal Anastomosis in the Treatment of Carcinoma of the Colon 398

TERPSTRE Gas Cysts of the Intestine 398

BROWN The Value of Complete Physiological Rest of the Large Bowel in the Treatment of Certain Ulcerative and Obstructive Lesions of This Organ, with Description of Operative Technique and Report of Cases 399

ROSENFELD Colitis Chronica Gravis 399

GRAHAM Report of Case of Fecal Tumor Associated with Hirschsprung's Disease 400

VON BIECK Late Conditions after Excision of the Colon by Means of Ileocolostomy 400

LANDAU The Initial Stage of Atypical Neo-Formations in the Rectum and the Sigmoid Flexure 401

BAER AND HEDENHORN Treatment of Amoebic Dysentery with Emetin 401

PROBST Rectal Prolapse Treated by Colopexy and Perineal Wiring on the Continuity of Rectal and Genital Prolapse on Hysterectomy 401

MACLEOD Rectal Section for Pelvic Abscess in Men 401

DELORE Autoplasty with Flaps of Skin and Anal Fistula 402

BARNES A Method of Operating on Fistula Without Cutting Muscular Tissue 402

ZONET A Further Consideration of Sir Charles Ball's Operation for Latent Hemorrhoids 402

MORRA Further Observations on Pilonus and Its Probable Ecologic Factor: Results of Treatment 402

Liver, Pancreas, and Spleen

POWELL AND SCHWARTZ Hepatic Effect of Multiple Tumors in Lesions of the Liver 403

KORNER Solitary Cysts of the Liver 404

KRAUTZ Cholelithiasis and Cholecystitis During Childhood and Its Treatment 404

BAKER Cholecystectomy in Cholelithiasis, Indications and Results 404

JACOB Suprapubic Fistula after Post Typhoid Suppurative Cholecystitis, Cholecystectomy Recovery with Persistence of the Fistula in the Stools 405

SECRETY The Employment of the Omentum for Hemostasis in Excision of the Gall Bladder 405

JORDA Inhibitory Action of Bile on Bacillus Coli 405

LANGE A Case of Free Transplantation of the Omentum to Stab Wound of the Spleen 406

MACLEOD Modern Surgery of the Spleen 406

GERRY Clinical Observations Concerning Tertiary Splenectomy 407

SURGERY OF THE EXTREMITIES

Diseases of the Bones, Joints, Etc. General Conditions Commonly Found in the Extremities

CLEGG AND DORRANCE Action of the X Rays on the Development of Callus; Comparison Study of Radiographic and Microscopic Aspects of Callus 408

MACRAE The Use of Tuberculin in Osseous Tuberculosis in Children 408

VOLPTE Treatment of Surgical Tuberculosis by Means of Light Rays 408

MOULDER A Case of Acute Bone Atrophy 409

MOULDER The Multiple Bone Tumors Found in Osteomielitis 409

DONNICO Cystic Tumor of the Head of the Femur 409

BROOKER The Treatment of Gonorrheal Arthritis 409

ZONET Pilonus Arthritis in Sockings and Its Importance in Future Deformities 409

GREYFINGER The Mobilization of an Ankylosed Elbow-Joint by Means of Pericardial Transplantation 410

MARSHAL Tenodesis Lesions of the Muscles of the Knee 410

BARTOW AND FLEISHER Further Observations on the Use of Intra Articular Silk Ligaments in the Paralytic Joints of Polio-myelitis 410

TOURETTE Sarcomas of the Tendon Sheaths 411

SEVERE The Giant-Cell Sarcomas Originating in the Tendon Sheaths and Aponeuroses 411

FLEISHER The Giant-cell Sarcomas of Tendon Sheaths Myxomas Defined as Giant-Cell Sarcomas Myxomas 411

Fractures and Dislocations

DEJOUVANT Fracture and Dislocation of the Interosseal Membrane of the Knee: Ligamentous Core 412

GUTHRIE The Treatment of Fracture of the Calcaneus and Its Relation to the Middle Bones of the Foot with Extension 412

HARDISON Complete Backward Dislocation of the Knee: Cure by Continuous Extension 412

Surgery of the Bones, Joints, Etc.

MURPHY Old Ununited Fracture of Acromioclavicular Neck of the Femur, with Suggestions for the Immediate Treatment of this Fracture 413

AL The End Results Following the Radical Operation for Knee Joint Tuberculosis in the Adult 413

GOWELL The Treatment of Ischemic Muscular Contractions by Free Muscle Transplantation 413

MILLER The Operative Treatment of Loose Feet 414

VANDY Supracondylar Osteoplastic Amputation of the Femur for Movable Artificial Legs 414

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

HICKMAN The Operative Treatment of Tuberculosis of the Spine 415

Malformations and Deformities

LANDAU The Open Reduction of Congenital Hip Dislocation by an Anterior Incision 415

CAMPBELL The Cause and Treatment of Deformities Following Anterior Poliomyelitis 415

MELANCON Modeling's Deformity of the Wrist 416

SURGERY OF THE NERVOUS SYSTEM

- NOTT JONES AND SAYE vs MARTIN Malignant Cerebral Neuremas 4 6
 HUNT Sciatica and Its Treatment 4 7
 DE LEE Action of the X Ray on the Peripheral and Central Nervous System 4 7
 OELLERER The Symptomatology and Surgery of the Disturbances of the Phrenic Nerve 4 7

DISEASES AND SURGERY OF THE SKIN
FASCIA, AND APPENDAGES

- DUNN Excessive Thickening of Thierck Grafts Caused by Composition of Scarlet Red (Anatomological) 4 8
 SETTON The Occurrence of Cancerous Changes in Benign New Growths of the Skin 4 8

MISCELLANEOUS

- Clinical Entries—Tumors, Ulcers, Abscesses, Etc.
 STROYER vs N. JACOFF Malignant Tumors from the Biological Standpoint 4 8
 NOWELL An Etiological Factor in Carcinoma and Its Possible Influence on Treatment 4 9
 STROYER Myeloma 4 9

Blood

- WHIFFLER vs HOOVER Hematogenous and Obstructive Intercerebral Experimental Studies by Means of the Elk Fistula 4 9
 WHIFFLER vs HOOVER A Rapid Change of Hemoglobin to Bile Pigment in the Circulation Outside the Liver 4 9
 WELLES Intracerebral Injection of Small Quantities of Human Blood for the Treatment of Severe Asthenia 4
 VON SAAR The Employment of the Momburg Tube in Cases of Hemorrhage 4 3
 FORTO Arrest of Hemorrhage and Treatment of Wounds with Coagulin Kober Force 4

SCHAFER The Checking of Internal Hemorrhage by Means of Intravenous Injections of Grape Sugar 4 3

FRANKLIN Hemorrhage from the Axillary Artery Three Months after Trauma, Ligation of the Artery False Volkmann's Ischemic Paralysis 4

BAUM Traumatic Venous Thrombosis in the Upper Extremity 4

MAJOR The Wernicke's Reaction in the Johns Hopkins Hospital 4

Blood and Lymph Vessels

- OFDIN Arteriolethaphy 4 3
 S. KOTENIAOFF The Action of Adrenalin upon the Peripheral Vessels 4 3
 JACOB Intradermal Lymphatic Varicos in the Inguino-crural Region 4 3
 STARR Lymphangioplasty Handley Method 4 3
 BYLIN KOTENIAOFF Drainage by Means of Thread According to Handley in Case of Elephantiasis 4 3

Poisons

- DUNN Interrelations in the Streptococcus Group 4 3
 WOLFE The Action of Collargol Lysates in Septic Processes 4 3
 MONTAGNI Treatment of Anthrax with Salvarsan 4 3

Electrology

- SNOW Dosage Measurements and Control of the X Ray and Other Agents in Therapeutics 4 3
 DRENNAN Physical and Technical Principles of Deeply Penetrating X Ray Treatment 4 3
 BERRY A Grating-Diaphragm to Cut off Secondary Rays 4 3
 WILKIN The Radiotherapy of Tumors 4 3

NAVAL AND MILITARY SURGERY

- STEELE vs VINCIGER Experiences with the Mastoid Bandage in the Service Turkish War 4 3
 LOTCH Gunshot Injuries of Blood Vessels 4 3

GYNECOLOGY

Uterus

- ROBERT A Large Coprolith Enclosing the Uterus and Surrounding Malignant Tumor 4 7
 WILLSON Chorio Epithelioma Following Hydatidiform Mole and Uterine Rupture: Intraperitoneal Hemorrhage from an Extension in the Right Ovary 4 7
 RABBIT Adenomyomatosis of the Uterus and of the Rectum 4 7
 DALLS Contribution to the Study of Benign Chorio Epitheliomas of the Wall of the Uterus and Tubes 4 7
 BURKE Results of X Rays and Mesothoracic Treatment of Uterine Carcinoma 4 8
 DÖRFLER Röntgen-Ray and Mesothoracic Treatment of Myoma and Carcinoma of the Uterus 4 8
 KÖRNER A Peculiarly Shaped Myomatous Uterus 4 8
 FRANK Partial Myoma Operations 4 8
 WATSON Pathology and Treatment of Uterine Hemorrhage 4 8
 SMITH The Thyroglandular Etiology of Hemorrhagic Metropathies 4 9

BILL The Pathology of Uterine Casts Passed During Menstruation 4 9

CARROLL Menstrual Mollusca, Adult Cases 4 9

ELVA vs Disturbed Menstruation in Psychosis 4 9

BLA Dysmenorrhea and Its Treatment 4 9

ZOEFER The Treatment of Amenorrhea 4 9

HILL A Further Consideration of the Use of Corpora Lutea in the Treatment of Artificial Menopause 4 9

WARD The Treatment of Endometritis 4 9

JONES Inversion of the Uterus, with Report of Case Occurring During the Puerperium and Caused by Fibroid 4 9

DONALD AND SELLW Retraction of the Uterus 4 9

ADAMS An Unusual Case of Rupture of the Uterus 4 9

Adnexal and Peritubal Conditions

ABEL AND MILLER The Arrangement and Distribution of the Nerves in Certain Mammalian Ovaries 4 9

RATKE Pseudomyoma Peritoneum with Involvement of Ovaries and Appendix 4 9

TUTTLE The Grafting of Human Ovaries	433	SCHAEFER Primary and Distal Results of the Operative	
HANES Transplantation of Ovaries into Foreign		Treatment of Perineal Lacerations, Vaginal and	
Species, Second Report	434	Uterine Prolapse Through Rostoration of the	
ROSE The Effect of Castration on the Hypophy-		Pelvic Floor	436
sis			
CORNO KITTLE A Case of Chorio-Epithelioma of	434	Miscellaneous	
the Fallopian Tube, Following Extra Uterine		HAUTH Extravascular Opening of the Uterus in	
Gestation	434	Women	436
External Genitalia		VAGINA Mesothorax as Substitute for X Rays	437
POPOVICH The Surgical Treatment of Primary Car-		FRANKLIN The Action of the So-Called Gas Bag	
cinoses of the Vagina	435	upon the Female Genitalia	437
BANDER The Importance of the Inverted T Inci-		SELLA Contribution to the Study of the Localization	
sion in Vaginal Surgery	435	of Micro-Organisms in Experimental Septicemia	437
KURO Eubiosis, or Lupa Vagina	435	KROCHER The Action of Mesothorax upon Genital	
HARRIS Perineorrhaphy with the Barbed Layer	435	Tumors	438
Stitch	436	FLORES The Operative Treatment of Old Infil-	
		trations	438

OBSTETRICS

Pregnancy and Its Complications		EAGLEMAN AND ELMER The Viscosity of the Blood	
HATCHER Quadruplets and Their Mothers	439	in Eclampsia and Other Diseases of the Female	
FOTCH A Further Contribution to the Displacement		Organism	445
of the Cervix During Pregnancy	439	LUCHINI Further Experience with the Expert	
JACOB Diseases of the Kidneys During Pregnancy		and Treatment of Eclampsia	446
in Women Suffering from Heart Disease	439	KROCHER Disturbance of Kidney Function in	
JACOB Kidney and Pregnancy	439	Eclampsia	446
SCHMIDT Heart and Kidney Affections During Preg-		MAKER The Treatment of Eclampsia	446
nancy	440	FRANK The Treatment of Eclampsia	446
STOCKER Kidney Disease and Pregnancy	440	VOGT The Obstetrical Significance of the Status	
FETTER Kidney Function in Pregnancy and in the	440	Hypothalamus	447
Toxemia of Pregnancy	440	KROCHER The Obstetrical and Gynecological Sep-	
ECAL The Function of the Kidney of Pregnancy		sis of Tetany	447
and the Eclampsic Kidney	44		
HOLM The Kidney in Pregnancy and Nephritis	44	Labor and Its Complications	
in Graviditas	44	TORRAN Fever During Delivery Obstetric Indica-	
MAYER Pyelitis and Its Relation to Pregnancy	44	tions for Its Treatment	448
OTTEN Pyelitis Gravidarum	44	KROCHER Pelvic Outlet Tumors Hindrance in Child-	
KROCHER Etiology and Treatment of Pyelitis	44	Birth	448
Gravidarum	44	ZIEGLER What Can Be Accomplished with the	
WEDD Serological and Clinical Phenomena in the		Method of Devertee Moller for the Delivery of	
Pyelitis of Pregnancy Antibodies in the Mater-		the Shoulders	448
nal Cord Blood in Cases of Pyelitis of Pregnancy	44	ZIEGLER A Method for the Correction of	
NOVAK AND STROHMEIER Concerning Peculiar Form		Face Presentation	448
of Glycosuria in Pregnancy and Its Relation to	44	ROZACZ Death Due to Rupture of Esophageal	
Diabetes Mellitus	44	Venous Occlusion During Labor	449
BROCKMEIER Acute Metrorrhagia Vaginitis in Preg-		LAMORE Facial Intraperitoneal Hemorrhage During	
nancy Due to Enterococcus	44	Labor Due to Rupture of the Uterine Vessels	449
SELDEN A Case of Rupture of the Uterus During		REINHARD Medical Treatment for Weak Labor	
Pregnancy	449	During Parturition	449
BRANTZEL A Case of Extensive Rupture of the		VOGLER The Galvanization Treatment of the	
Utero-Vaginal Junction with Escape of the Placenta	449	Uterus According to Bayer in Connection with	
into the Peritoneal Cavity	449	Pneumonia as Means for the Artificial Induction of	
SAMSON Pregnancy and Labor Complicated by		Premature Labor and Labor at Term	449
Ovarian Cysts	449	KROCHER Subcutaneous Symplymectomy of Frank	450
BECK Multiple Sclerosis in Pregnancy and Labor	449		
COVIELL Surgical Treatment of Hemorrhage		Puerperium and Its Complications	
Due to Separation of the Normally and Abnor-		JACOB AND KROCHER Three Cases of Symmetrical	
mally Situated Placenta	449	Necrosis of the Cortex of the Kidneys Associated	
MCDONALD AND KROCHER Bilateral and Multiple		with Puerperal Eclampsia and Suppression of	
Ectopic Pregnancy	449	Urine	450
MURRAY The Diagnosis and Treatment of Extra-		ROHMANN Clinical and Experimental Investigations	
uterine Pregnancy and Report of Over 100 Con-		Concerning the Action of Oxytocic Substances	
ditional Operative Cases	449	During the Puerperium	450
MCCANN A Primary Ovarian Pregnancy at the		HOGGINS Differential Diagnosis and Treatment of	
Fourth Month	449	Puerperal Infection	451
WILSON A Contribution to the Study of Eclampsia	449	SCHWARTZ Prophylaxis of Puerperal Infection	451
as Toxicosis of Possible Malarial Origin	449	STONARD Puerperal Infection	451

Miscellaneous

FRONKEL The Relations of Affections of the Heart to Pregnancy Delivery and Puerperium	45
ZIMMERMAN Serum Diagnosis of Pregnancy	45
ROUSSEAU The Biological Diagnosis of Pregnancy by the Aid of the Optic and Dialysis Methods	45
LECHTENBERG Abderhalden Dialytic Procedure	45
SCHLIMMER Experimental Research on the Physiology of the Hypophysis	453
BARRETT Clinical Experiences with Pituitariol	453
ZANTHOFFER Organotherapeutic Value of Adrenalin in Pregnancy	453
ZUNDEL The Value of the Caput Succedaneum as Sign of Vital Reaction	453

KOCH Modern Echo-Sc, with Special Reference to B-Incidendiography	453
DEBRAUER Pelvic Measurement by Means of X Rays	453
PERARDO The Significance of Micrometria in Dissections of the New-Born	454
FRANK The Tardiness of the Urine During Pregnancy Labor and Puerperium	454
FOWLER Lower Arm Type of Obstetric (Brachial) Paralysis: Report of Case	454
HIMMELMAN The Origin of the Syncytial Lacunae in Human Ova	454
GRISTEVAJERO Remarks on Rottger's Method of Curing Contracted Pelvis	454
KRUEGER Concerning Hebstectomy	455
FRANKEL Investigations in Regard to the So-Called Gland Endocrine Myometrium	455

GENITO-URINARY SURGERY

Kidney and Ureter

SARIN Bilateral Nephrotheliosis	456
ANDERSON Biliary Calculi Causing Lesions in Renal Radiography	456
ISOME Experiments on the Influence of an Injured Kidney on the Kidney of the Other Side	456
KOCHER The Operative Treatment of Floating Kidneys	457
CAVALLI The Etiology of Kidney Cysts	457
BECKER The Cystic Kidney Studies Regarding Its Pathologic Anatomy	457
SCHNEIDERMAN The Infectious Diseases of the Kidney and Urinary Passages	458
B. UNGERLIN A Case of Post Operative Pericapsulitis Serosa	459
BAKERTY Contribution to the Study of Pyelitis Granulosa	459
DIERVOEN Traumatic Hydrocephalus	459
ALEMAN A Case of Right-Sided Intermittent Hydro-nephrosis Caused by Two Accessory Renal Arteries, Operatively Removal of Same Recovery	460
THORNTON The Cause of Pain in Pyelonephritis: Report of Accident and Experimental Findings	460
WARGENTHOFER Decapsulation of the Kidney	460
MOORE AND CORRETT An Experimental Study of Several Methods of Sutureing the Kidney	46
LEWIS Concerning Bilateral Uretrotheliosis in Calculous Anuria	46
HARTMAN Operative Treatment of Supernumerary Aberrant Ureters	46
HUTCHINSON Obstruction of the Ureter by Aberrant Renal Vessels Clinical Study of the Symptoms and Results of Operation	46
OTTO Contribution to the Study of Intermittent Ureterocoele Vesicalis	462
LORENTZEN Cystic Dilatation of the Vesical End of the Ureter	462
ZUCKERKANDL The Local Treatment of Retention of Urine and Pus in the Kidney by Means of Ureteral Catheterization	462

PARSONS Permanent or Temporary Derivation of the Urine by Means of Nephrostomy	46
KIMO A Small Muscle-Splitting Incision for the Exposure of the Pelvic Portion of the Ureter	463

Bladder, Ureters, and Penis

LEWIS Where is the Fundus of the Bladder	463
UNTERMEYER The Operative Treatment of Rebellious Cystitis Cases with Curettement of the Bladder and Temporary Urinary Fistula	463
LEWIS Contribution to the Treatment of Ectrophy of the Bladder	463
OWEN Ectrosion of the Bladder	465
BURROUGHS A Clinical Study of the Application of Improved Intravesical Operative Methods in Diagnosis and Therapy	465
HENSE The Effect of Gonorrheal Infections upon the Microcirculation of the Genito-Urinary Tract	465
PERINSON AND COLLIE Mesuration and Projection of the Posterior Urethra and Vesical Floor by Means of Posterior Urethral Calipers and Radiography	465
SH. The Comparative Value of Cystostomy and Urethrostomy in Operations on the Urethra	466

Genital Organs

SCHROTER Comparative Study on the Treatment of Acute Gonorrheal Epididymitis with Antikongonorrheic Serum	466
BARNEY Tuberculosis of the Epididymis; Its Effect upon Testicles and Prostate	467
BIRNELL Restoration of the Bladder Function after Prostatectomy	467

Miscellaneous

HERR Experimental Study Concerning Bacillus Coll Infection of the Urinary Organs	467
KELL AND LEWIS Silver Iodide Emulsion: A New Medium for Radiography of the Urinary Tract	468
SARIN The Excretion of Formalin in the Urine an Inquiry into the Accuracy of Burman's Test	468

SURGERY OF THE EYE AND EAR

Eye		Ear			
BALL	Anisophoria from Hemorrhage	469	MELNICK	The Value and Indications for Incision of the Eardrum in Otitis Media	469
MILLER	Chronic Inflammatory Tumor Formations of the Orbit	469	PETER	Preservation of the Aurial Capsule in Operations for Acute Suppurative Processes of the Mastoid	470
MATTISON	A Case of Pulsating Exophthalmos	469	COMBARRELL	Two Cases of Trepanation of the Labyrinth Operation and Cure	470
WERNER	Concerning Dermoids and Dermo-Lipomas of the Conjunctiva	469	HALLON	Aural Species and Angular Cornea	470
WYLER	Enucleation under Chloro-Gainger's Anesthesia	469			

SURGERY OF THE NOSE, THROAT AND MOUTH

LEIBOWITZ	Some Notes on the Treatment of Atrophic Rhinitis by Doxiform	471	PETERS	Cyst of Aryteno-Epiglottic Fold which Burst Spontaneously	471
GARRELL	An Extreme Example (Unilateral) of the Nasal Cavity Extending Between the Molar Roots	471	HOPKINSON SMITH	The Structure of the Dental Pulp in Ovarian Teratomas	471
TILLEY	An Instrument for Expediting the Extraction of Embedded Teeth	471	VOY TAPPEER	Tuberculous of the Gums	471

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNIQUE	
Operative Surgery and Technique	471
Aseptic and Antiseptic Surgery	471
Anesthesia	471
Surgical Instruments and Apparatus	471

SURGERY OF THE HEAD AND NECK

Head	473
Neck	474

SURGERY OF THE CHEST

Chest Wall and Breast	474
Trachea and Lungs	475
Heart and Vascular System	475
Pharynx and Esophagus	475

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum	476
Gastro-Intestinal Tract	477
Liver, Pancreas, and Spleen	479
Miscellaneous	480

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons	
General Conditions Commonly Found in the Extremities	480
Fractures and Dislocations	481
Surgery of the Bones, Joints, etc.	481

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine	481
Malformations and Deformities	481

SURGERY OF THE NERVOUS SYSTEM

	481
--	-----

DISEASES AND SURGERY OF THE SKIN, FASCIA, APPENDAGES

	484
--	-----

MISCELLANEOUS

Chancal Eruptions—Tumors, Ulcers, Abscesses, etc.	484
Sore, Vaccines, and Ferments	485
Blood	485
Blood and Lymph Vessels	486
Poisons	486
Surgical Therapeutics	487
Surgical Anatomy	487
Electrology	487
Military and Naval Surgery	488
Surgical Diagnosis	488

GYNECOLOGY

Uterus	488
Adnexal and Perforative Conditions	489
External Genitalia	489
Miscellaneous	489

OBSTETRICS

Pregnancy and Its Complications	489
Labor and Its Complications	490
Puerperium and Its Complications	491
Miscellaneous	491

GENITO-URINARY SURGERY

Kidney and Ureter	491
Bladder, Urethra, and Penis	494
Genital Organs	494
Miscellaneous	495

SURGERY OF THE EYE AND EAR

Eye	495
Ear	496

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth	496
-------------------------	-----

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

- Abel 433
 Alambertini 393
 Albrecht 385
 Aleman 460
 Andrews 433
 Arctus 496
 Archibald 385
 Bachy 405
 Baernmann 40
 Baertner 459
 Balfour 30
 Ball 469
 Bandier 435
 Bandister 442
 Baradaba 388
 Barnes 407
 Barney 402
 Bartow 4
 Barret 453
 Bascherren 459
 Bazin 4
 Beck 443
 Bell 439
 Bellows 470
 Benedict 390
 Benard 393
 Berner 457
 Biggs 386
 Bismel 407
 Blas 430
 Bordignon 39
 Brooks 400
 Brown 35 390
 Buckley 436
 Doering 465
 Buzen 438
 Bylin Kolosovskiy 425
 Campbell 4 5
 Carrow 385
 Caulle 457
 Chabolan 490
 Clairmont 385
 Chomel 30
 Cluzet 408
 Cole 495
 Comperick 470
 Cope 434
 Corbett 46
 Court 40 413
 Dacia 477
 D 15 4 8 4 5
 Defouzany 4
 Delaire 4
 De Lora 4 7
 Dewester 4 5 453
 Dikleria 428
 Domingo 409
 Donald 43
 Drennon 459
 Drummond 390
 Dubroff 408
 Earl 38
 Eckelt 44
 Edberg 400
 Eppers 445
 Engelmann 445
 Epstein 385
 Falgowski 435
 Feltzer 440
 Fleming 4
 Fordo 42
 Fowler 454
 Frenkel 437 455
 Franz 454
 Freund 490 446
 Frolich 4
 Froome 45
 Gath 439
 Gebell 47
 Getinsky 4
 Gervaisberg 454
 Giffin 407
 Gobel 4 3
 Goldthwait 397
 Gouldwood 393
 Graham 400
 Greff shagen 4
 Grub 30
 Haesel 303
 Halpern 383
 Hardown 4
 Harris 434
 Hartmann 436 40
 Hauser 430
 Hayman 490
 Hagen 416
 Heide 30
 Hennemann 40
 Hendrickson 4 5
 Hew 467
 Heyman 30
 Hill 45
 Hirschmann 454
 Horch 405
 Holzbach 44
 Hooper 490
 Hopewell-Smith 47
 Hugnos 45
 Hunt 4 7
 Huihannon 46
 Hubsch 47
 Inoue 456
 Jacob 405 424
 Jardine 450
 Jachke 439
 Jones 43
 Jordan 405
 Kehler 447 450
 Kellogg 393
 Kelly 458
 Kenned 450
 Kettle 434
 Khatia 404
 Kackl 463
 Koch 453
 Korber 457
 Kreyer 444
 Kri 453
 Kroemer 438 44 446
 Kubin 384
 Kurg 435
 Kusman 418
 Kuttner 38 428
 Lange 406
 Langen 449
 Lardemann 395
 Lawren 46
 Lerda 405
 Lew 405 468
 Lilemsky 40
 Lichtenstein 416 45
 Lohstein 46
 Lotich 476
 Ludloff 4 5
 Maescher 387
 Malarte 40
 M for 42
 Mannaberg 354
 Marshall 4
 Marband 38
 Marchard 408
 Martini 4 6
 Mathewson 469
 M y 4 5
 M et 44
 M lard 398
 May 39
 Melann 444
 M Donaki 444
 McIlroy 433
 Melchior 416
 Meßer 469
 Meckelmann 408
 Melnick 4 5
 Molineux 409
 Moensburg 393
 Moore 40
 Mubram 444
 Muller 407 4 4
 Murphy 4 3
 Murray 40
 Nade 416
 Nelson 469
 Nenjukoff 4 8
 Norris 404
 Novak 442
 Novak-Joseph 4 6
 Nowell 4 9
 Oball 395
 O'Day 4 3
 Ochlecker 417
 Oklaszyc 395
 Opitz 44
 Opokin 403
 Oppel 405
 Ottow 46
 Palowski 46
 Palfrey 39
 Pedersen 465
 Ferrando 454
 Petter 47
 Pierce 470
 Munner 4
 Popelinski 383
 Popkin 4 3
 Possony 455
 Proust 40
 Rasplid 417
 Rathe 433
 Relshard 449
 Ruzman 449
 Rysanoff 397
 Rosero 4 7
 Rosenheim 399
 Rowle 434
 Rühmann 450 45
 Samkin 445
 Sa y 4 6
 Schabak 496
 Scheldensadel 458
 Schlanoff 403
 Schimpert 453
 Schöffel 384
 Schmidt 390 440
 Schmitz 456
 Schuber 42
 Schurckner 457
 Sebrt 439
 Seidel 39
 Seila 417
 Seilhelm 44
 Shaw 43
 Shormaker 44
 Sil a 466
 Smirnov 38
 Smith 454 468
 Snow 4 5
 Sonnenburg 395
 Spiess 4
 Swanson 385
 Sternberg 386
 Siteria 476
 Stockart 45
 Stoeckel 440
 Strower 442
 Stockley 405
 Sutton 4 5
 Swetschikoff 4 8
 Swetschikow 389
 Syloff 4 8
 Syms 424
 Symjoff 480
 Tate 390
 Tatum 384
 Tennant 460
 Tennyah 418
 Tilley 47
 Torok 386
 Tourneau 4
 Tuffier 38 433
 Turman 398
 Unterberg 463
 Veidra 414
 Vagler 394
 Vlecher 436
 Vogelberger 449
 Voigt 447
 Voigt 417
 Von Beck 400
 Von Haberer 388
 Von Saar 4
 Von Tappeiner 47
 Valpin 408
 Ward 43
 Warlichschaff 460
 Welser 4
 Welbel 44
 Weiler 469
 Wendel 383
 Wengowski 38
 Werner 476
 Whipple 420
 Whitcomb 429
 Wilson 4 7 415
 Wolf 4 3
 Wyler 460
 Zandrogol 453
 Zangermeister 448
 Ziegler 448
 Zerkle 453
 Zobel 40
 Zorppera 430 45
 Zuckerkandl 46

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Stuart McGuire Lewis S. McMurry Willy Meyer James E. Moore Fred T. Murphy John B. Murphy
 James M. Neff Edward H. Nichols A. J. Ochsenstetter Roswell Park Charles H. Peck J. R. Pennington
 S. C. Plummer Charles A. Powers Joseph Ransohoff H. M. Richter Emmet Rindorf H. A. Royce
 W. E. Schroeder Charles L. Scudder M. G. Seelig E. J. Sims John E. Summers James E. Thompson
 Herman Tinkels George Tully Vaughan John R. Watson. CANADA: E. A. Archibald J. E. Armstrong
 H. A. Bruce Irving J. Cameron Jasper Halpern J. Alex. Hutchison Francis J. Sheppard F. M. Starr
 T. D. Walker. ENGLAND: H. Branton Angus Arthur H. Barker W. Watson Cheyne W. Simpson Hasley
 W. Arbuthnot Las G. H. Miskin Robert Milne B. G. A. Moynihan Rushton Parker Harold J. Ellis
 Gordon Taylor

GYNECOLOGY AND OBSTETRICS

AMERICA Frank T. Andrews Brooks M. Anspach W. E. Ashton J. M. Baldy Channing W. Barrett
 Herman J. Boldt J. Wesley Boyle LeRoy Brown Henry T. Byrd John O. Clark Edwin B. Craig
 Thomas S. Cullen Edward P. Davis Joseph B. D. Lee Robert L. Dickinson W. A. Newman Denton E. C.
 Dudley Hugo Ehrenfest C. S. Elder Palmer Finley Henry D. Fry Georg Gelhorn J. Riddle Goff
 Seth C. Gordon Barton C. Hirst Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krug
 L. J. Ladinsky H. F. Lewis Frank W. Lynch Walter P. Manton James W. Markee E. E. Montgomery
 Henry P. Newman George H. Noble Charles E. Paddeck Charles E. Pedrose Reuben Peterson John O.
 Polak Wm. M. Polk Edward Reynolds Emil Ries John A. Sampson F. F. Simpson Richard S. Smith
 William S. Stone H. M. Stowe William E. Stoddard Frederick J. Tamm Howard C. Taylor Elmer
 N. Vineberg W. F. B. Wakefield George G. Ward, J. William H. W. than J. Whitbridge Williams.
 CANADA W. W. Chipman William Gardner F. W. Marlow K. C. McIlwraith V. P. Watson A. H.
 Wright. ENGLAND Russell Andrews Thomas W. Eden W. K. Fothergill T. H. Hadler Thomas Wham.
 SCOTLAND William Fordyce J. M. Munro Kerr. IRELAND Henry J. J. Hastings Tweedy
 AUSTRALIA Ralph Worral. SOUTH AFRICA: H. Temple Murrell. INDIA Kedarnath Des.

GENITO-URINARY SURGERY

AMERICA Wm. L. Bacon Wm. T. Bedford Joseph L. Beeson L. W. Bremerman Hugh Cabot John
 R. Calk Charles H. Chacewood John H. Cunningham J. S. Eisenstadt Ramon Gutierrez Francis R.
 Hagner Robert Herbert Edward L. Keyes, J. Gustav Kohnkecker F. Krauss Bradford Lewis G. Frank
 Lydston Granville MacGowan L. E. Schmidt J. Bentley Squier B. A. Thomas Wm. M. Whitard Hugh
 H. Young Joseph Zeisler. ENGLAND T. W. Thomson Walker John G. Purdie. INDIA Mitayendral Mitra.

ORTHOPEDIC SURGERY

AMERICA E. C. Abbott Nathaniel Allison W. S. Barr O'Byrne G. Davis Albert G. Fraiberg Arthur
 J. Gillette Virgil P. Gibney Joel E. Goldthwait O. W. Irving Robert W. Lovett George B. Peckard John
 L. Porter John Eldon Edwin W. Ryerson Harry M. Sherman David Silver H. L. Taylor H. Augustus
 Wilson James K. Young. CANADA. A. Mackenzie Forbes Herbert P. El. Galloway Clarence L. Starr
 ENGLAND Robert Jones A. H. Tubby George A. Wright.

RADIOLOGY

Eugene W. Caldwell Russell D. Carman L. Gregory Cole Preston M. Hickey Henry Hiet George
 C. Johnston Sidney Lange George E. Phahler Holke E. Potter. CANADA Samuel Cummings Alexander
 Howard.

SURGERY OF THE EYE

AMERICA C. H. Beard E. V. L. Brown H. D. Burns Vard H. Hulen Edward Jackson W. P. Mayble
 William Campbell Posey Brown Posey Robert L. Randolph John E. Weeks Cassius D. Wessett William
 H. Widder Casey A. Wood Hiram Woods. ENGLAND J. B. Lawford W. T. Holmes Spicer. SCOTLAND
 George A. Berry A. McIlwain Ramsey

CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EAR

AMERICA: Ewing W. Day, Max A. Goldstein, J. F. McKernon, Norval H. Pierce, S. MacCuen Smith.
 CANADA: H. S. Birkett. ENGLAND: A. H. Chasle. SCOTLAND: A. Logan Turner. IRELAND:
 Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA: Joseph C. Beck, T. Melville Hardie, Thomas J. Harris, Chrisbam R. Holmes, E. Fletcher
 Legala, Chevalier Jackson, John N. MacKinnon, G. Hudson Makken, George Paul Marquis, John Edwin
 Rhodes. AUSTRALIA: A. J. Brady, A. L. Kenney. INDIA: F. O'Kinealy.

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS—General Surgery
 CARRY CULBERTSON and CHARLES B. REED
 —Gynecology and Obstetrics
 LOUIS E. SCHMIDT—Genito-Urinary Surgery
 JOHN L. PORTER—Orthopedic Surgery

HOLLIS E. POTTER—Radiology
 WILLIAM H. WILDER—Surgery of the Ey
 NORVAL H. PIERCE—Surgery of the Ear
 T. MELVILLE HARDIE—Surgery of the Nose
 and Throat

GENERAL SURGERY

AMERICA: Carrell W. Allen, E. K. Armstrong, Donald C. Balfour, H. R. Basinger, George E. Bailey,
 E. M. Bernheim, Barney Brooks, Walter H. Buhlig, J. P. Carnett, Otto Cassl, Philippe M. Chase,
 James F. Churchill, Isadora Cohn, Karl Connell, Lewis B. Crawford, V. C. David, N. Shan S. Davis III,
 D. L. Deesard, L. G. Duran, Frederick G. Dyas, A. B. Estace, Ellis Fischel, Herman B. Gessner, Donald
 C. Gordon, Tor Wagner Harmer, Christian D. Hauch, James P. Henderson, Charles Gordon Heyd,
 Harold P. Kahn, Lucian H. Landry, Felix A. Larns, Halsey B. Leder, Urban Mae, Wm. Carpenter
 MacCarty, B. F. McGrath, R. W. McNealy, Alfred H. Nookren, Matthew W. Packard, Maurice C. Pincoffs,
 Eugene H. Pool, H. A. Potts, Martin R. Rahlbig, E. C. Riebel, Floyd Rley, M. J. Sallert, J. H. Skiles,
 Harry G. Sloan, John Smyth, Carl E. Stabak, Lister H. Tscholake, Henry J. Van den Berg, W. M. Wilkinson,
 Eddy M. Williams, Erwin P. Zeisler. ENGLAND: James E. Adams, Percival Col, Arthur Edmonds,
 I. H. Houghton, Robert E. Kelly, William Giliatt, B. C. Maybury, Eric P. Gould, T. B. Legg, Felix Reed,
 E. G. Schlesinger, B. Sengster Simmonds, Harold Upcott, O. G. Williams. SCOTLAND: John Fraser,
 A. P. Mitchell, Henry Wade, D. P. D. White.

GYNECOLOGY AND OBSTETRICS

AMERICA: S. W. Handler, A. C. Beck, Daniel L. Borden, D. H. Boyd, Anna M. Braunwarth, E. A.
 Bullard, Eugene Cary, W. H. Cary, Sidney A. Chakani, Edward L. Connell, A. H. Curtis, A. Henry Dunn,
 F. C. Knaflitzberg, William K. P. Farrar, W. B. Fekring, Howard G. Gerwood, Maurice J. Geiphi, Luba E.
 Goldsmith, C. G. Grubbs, N. Sprout Haxney, T. Leacraft Hain, D. S. Hums, John C. Hirst, F. C. Irving,
 L. A. Jakabe, Norman L. Kalpe, George W. Keenak, H. W. Kohnsayer, Julius Lackner, Herman Lober,
 Rafael Lorral, Donald Macomber, Harry B. Matthews, L. P. Milligan, Arthur A. Moore, Ross McPherson,
 George W. Ostlebrick, Albert E. Pagan, George W. Partridge, Wm. D. Phillips, Reginald M. Rawls,
 L. W. Sauer, Halvoder Schiller, A. H. Schmidt, Henry Schultz, Edward Schumann, Ernst Schwarz,
 J. M. Stenhouse, Camille J. Stannan, Arnold Sturmdorf, George de Tarsawsky, S. R. Tyrone, Marie L. White,
 P. F. Williams, R. E. Wolan. CANADA: James R. Goodall, H. M. Little. ENGLAND: Harold Chapple,
 Harold Clifford, F. H. Lacey, W. Fletcher Shaw, Clifford White. SCOTLAND: H. Latta Murray,
 J. H. Whelatt.

ABSTRACT EDITORIAL STAFF—Continued

GENITO-URINARY SURGERY

AMERICA: Charles E. Barrett J. D. Barney R. S. Barringer Horace Binney Theodore Drexler
H. A. Fowler F. E. Gardner Lewis Gross Thomas C. Holloway H. O. Hamer I. S. Kell H. A. Krom
Herman L. Kratschmer Martin Krotoszyn Victor D. Lempine William E. Lower Harvey A. Moore
Stirling W. Moorsland A. Nelson C. O'Crowley R. F. O'Neil H. D. Orr G. M. Peterkin C. D. Pickett
H. J. Polkey Jaroslav Rada E. Wm. Schapira Georg O. Smith A. C. Stokes L. L. Ten Broeck H. W. R.
Walther Carl Lewis Wheeler ENGLAND: J. Swift Joly Sidney G. MacDonald.

ORTHOPEDIC SURGERY

AMERICA Charles A. Andrews A. C. Bachmayer George I. Baumann George K. Bennett Howard
K. Bicker Lloyd T. Brown C. Herman Bocheit C. C. Chatterton W. A. Clark Robert B. Coffield Alex R.
Colvin Arthur J. Davidson Frank D. Dickson Albert Ehrenfried William G. Erving F. J. Greenlee M. R.
Henderson Ph. Hoffman C. M. Jacobs S. F. Jones F. C. Kidner F. W. Lamb Prescott LeBreton
Paul B. Magnuson Georg J. McChesney H. W. Orr Arthur O'Reilly H. A. Pingree W. W. Plummer
Robert O. Ritter J. W. Sever John J. Shaw Charles A. Stone Paul P. Swift H. B. Thomas James O.
Wallace James T. Watkins C. L. Wells DeForest P. Willard H. W. Wilcox. CANADA: D. Gordon Evans
ENGLAND: Howard Bock E. Rock Carling Naughton Dunn E. Lennab Evans W. H. Hay John
Morley T. P. McMurray Charles Roberts G. D. Telford.

RADIOLOGY

David R. Bowen John Burk James T. Case William Evans Amos G. Granger G. W. Grier Adolph
Hartung Arthur F. Holding Leopold Jacob Albert Miller David C. Strauss Frances E. Tarley

SURGERY OF THE EYE

AMERICA E. W. Alexander N. M. Brinkerhoff C. G. Darling T. J. Dinahy J. B. Ellis E. B. Fowler
Lewis J. Goldbach Harry S. Gracie J. Milton Gileason R. F. Krag Francis Lane Walter W. Watson
ENGLAND F. J. Cunningham M. L. Heyburn Foster Moore. SCOTLAND John Pearson Arthur Hy R.
Stclair Ramsay H. Traquair James A. Wilson.

SURGERY OF THE EAR

AMERICA H. Beath Brown J. R. Fletcher E. B. Fowler A. Spencer Kaufman Robert L. Langhorne
W. H. Theobald T. C. Winters. CANADA H. W. Jamieson. ENGLAND G. J. Jenkins. SCOTLAND:
J. B. Fraser. IRELAND T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA George M. Coates Carl Finkler E. Clyde Lynch Ellen J. Patterson. AUSTRALIA: V.
Munro. INDIA. John T. Murphy

COLLABORATING EDITORIAL STAFF
FOR FRANCE AND GERMANY

Journal de Chirurgie B. Cuneo J. Dumont A. Gossot P. Lecene Ch. Lenormant E. Proust
Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete A. Bier A. Frh. von Eiselsberg
C. Franz O. Hildebrand A. Kohler E. Kuster F. de Quervain V. Schmieden
Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete. O. Beutner
A. Dodertlein Ph. Jung B. Kronig C. Menge O. Pankow E. Runge E. Wertheim
W. Zangemeister

INTERNATIONAL ABSTRACT OF SURGERY

OCTOBER, 1913

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGERY OF THE HEAD AND NECK

HEAD

Tufter: Traumatic Facial Hemispasm (*Hémispasme facial d'origine traumatique*). *Bull et mem Soc. de chir. de Par.* 9 3 xxxv, 396.

By Journal de Chirurgie.

Tufter presents the thirty-seven years old who was hit on the head and had fracture of the bony auditory canal followed by suppuration in the middle ear. Slight facial paralysis with facial asymmetry came on shortly and at the end of six weeks was succeeded by symptoms of facial spasm with both gross and fibrillary contractions and some trouble with the sight.

The cause of the spasm is easily explained. The intimate connection of the facial nerve and the tympanic cavity makes it easy for the nerve to be irritated by the products of a middle ear disease and so develop functional troubles. This lesion develops from the weeks to month after the trauma. Sometimes there is only spasm but there are contractures between the tracks of spasms are seen. Complicating lesions of the eye or ear may be present.

This condition may last for some time, even several years. Tufter's patient, after some weeks, seemed better and probably will recover entirely despite the fact that there are permanent auditory and equilibrium disturbances, for there is no reaction of degeneration. The prognosis is good.

J. DUNCAN.

Earl: The Limitations and Possibilities of X Rays in Skull Diagnosis. *J. Lancer*, 9 3, xxxiv, 307.

By Surg., Gynec. & Obst.

Changes in the soft part of the brain, such as meningitis, abscess, hematomas or soft tumors do not produce sufficient change in density per se to be recognizable on the Röntgen plate. It is mainly

by their effect on the bony structures that diagnostic signs are obtained. Among the conditions producing local or general thickenings of the cranium are rickets, syphilis, acromegaly and osteitis deformans. Localized destructions may be endothelioma or metastatic tumors from the thyroid, mammary, prostate, ovary or suprarenal gland. An intra-cranial tumor may cause a marked local thinning of the skull by pressure atrophy.

Changes in the sella turcica and region may be due to hypophyseal tumor or to other basilar growths such as tumor or cyst of neighboring structures. Primary conditions of the sphenoidal sinus may alter the form of the sella with or without affecting the bone structure. Signs of general intracranial pressure may be found in the digital impressions of the wall of the cranium—scalloped impressions separated by ridges corresponding to the outlines of convolutions. Other compression signs are the widening of the channels for the diploic veins as when the cavernous sinus is compressed the sphenoparietal sinus is seen to be greatly enlarged.

The work of localizing foreign bodies in the eye or orbit and the detection of pus and tumors in the accessory sinuses of the nose is well established and used as routine in all the larger clinics.

HUGHES E. POTTER.

Brown: The Diagnostic Evidence Obtained by X Rays from the Lateral Aspect of the Skull, with Especial Reference to the Base and Its Adnexa. *Boston M. & S. J.* 9 3, civild, 232.

By Surg., Gynec. & Obst.

Since the contribution of Caldwell upon the value of the occipito-frontal projection of the cranium, the lateral projection has fallen more or less into disuse. All structures which are bilaterally placed are superimposed one upon the other and the picture thus obscured. But in lateral projections conditions

tion evidence can be obtained concerning a suspected pathological condition. Frontal sinus disease, ethmoidal disease, etc., are more easily diagnosed than pituitary lesions in both planes than in the occipitofrontal plane.

In disease in the region of the sphenoid and pituitary body the lateral view is likewise essential to complete understanding of the condition. There is a large range of variations in the region of the pituitary body and (1) hypoplasia or may not be called normal and it requires a great amount of experience to read accurately lateral projection of this region. J. L. SMITH.

VI. Hydrocephalus Epilepsy. Hydrocephalus (symptomatic). (Chirurgie Par. 93, 24, 1924). By Zenkaido (Japan). (Grazing).

In this paper Mr. Zenkaido includes all those cases of traumatic epilepsy which follow head injuries. These consist of about 3 per cent of all cases and occur at an age though most of them are seen before the twentieth year. The earliest cerebral injury and the first attack may vary greatly but in most instances it does not occur until years after the injury and is directly associated with the injury and is differentiated from those which do not appear till weeks or months later. The former is due to cerebral disturbances and usually disappears entirely with the subsidence of the symptoms, while the latter is the result of permanent changes which determine the convulsive attack. The right seizures happen most frequently after serious meningeal operations on the upper third of the cerebrum, but a more common cause is the development in many cases of the injury is so slight that it must be looked upon as the etiological cause, but which is hereditary predisposition to it. This law belongs to the cases developing after trephining operation. The author denies that the surgical interference itself, the cause of the seizures and it does not agree with the opinion that the disease for which trephining is indicated must be the cause. HOLZMANN.

Brainell. The Plastic Closure of Dural Defects. (Über den plastischen Verschluss der Duradeckelungsdefekte). (Dissertation. St. Petersburg, 1924). By Zenkaido (Japan). (Grazing).

This work covers the subject thoroughly. The author discards all methods employing autoplasmic material. He reports the results of seventy-four experiments performed on dogs and rabbits. In the control experiments the defect was filled in by scar and pia tissue when heteroplasmic material was used. The material was slowly absorbed and connective tissue capsule developed around it. If the cortex was not injured no adhesions formed between it and the lamina tertia. Delicate adhesions are however formed between the pia and the capsule. The author comes to the following conclusions: regard to heteroplasmic methods. With brain injury present, adhesions cannot be prevented between the cortex and the

transplant. Undamaged cortex adhesions are not observed. The least irritation of the cortex occurred when fish bladder and living peritoneum were used.

The second part of the work describes the author's own methods. He also reports two unpublished cases in which an account of traumatic epilepsy, portion of the dura was excised and free fascia transplanted. He concludes that free fascial transplantation for dural defects must be given the preference above all other methods. Of special importance is the fact that it prevents cerebral prolapse. He does not consider free fat transplantation for dural defects practical and brings several arguments against this suggestion of Rehn. The cerebral pressure induced by the massive piece of fat implanted, according to the author, speaks against its practical application. Further, more the fissure was cut through the fatty tissue and the liquor cerebri escapes through these openings.

He also performed seven decisive experiments and comes to the following conclusions. The transplantation is an efficient connective tissue in which islands of fat can be observed. After six weeks young connective tissue forms with new spallings. After ten months the connective tissue has become firm. The injured cortex, connective tissue from the cortex migrates into the lat. ventricle. The cortex migrates firmly against the ventricle. An intracranial angiography and x-ray-contrast photographs accompany the monograph. HIRSH.

Wenglowski. The Operative Treatment of Hydrocephalus. (Über die operative Behandlung des Hydrocephalus). (Chirurgie. St. Petersburg, 1924). By Zenkaido (Japan). (Grazing).

Hydrocephalus is a term which occurs less frequently than hydrocephalus internus. It is in the more extensive variety of K. Koch, P. J. and V. Braun, the former variety occupies only small space. The author describes an interesting case belonging to that class. In girl months old perianth revealed large collection of fluid between the dura and the arachnoid. There are no evidences of cerebral atrophy. Free communication between the subdural space and the subcutaneous connective tissue established to permit the fluid to drain away. Accomplish this large piece of the dura and the skull was removed. The result was very gratifying. The fluid rapidly absorbed by the connective tissue and the hydrocephalus disappeared. The case was observed for 9 months.

The second part of this article the author discusses hydrocephalus internus and bases his argument on the method of drainage used by V. Braun and P. J. The chief objections to craniotomic drainage are the too rapid absorption of the fluid and the variations in the pressure conditions. On this account the larger drainage tubes are to be discarded. Directing the fluid into the general

circulation or into the abdominal cavity (Kausch) is to be avoided since by these methods the fluid is drained off too rapidly. On this count the fluid had better be led into the subdural space or into the subcutaneous tissue. A further drawback is the premature closure of the drainage opening. Wenglowski made an attempt to construct a tube by utilizing the dura, and establish a communication between the subdural space and the ventricle. When employing this method great care is necessary that the dural vessels remain in communication with the flap. Formerly Boyer used the dura, the reparation of spinal fluid in the lumbar region.

The author has used this method in two cases of hydrocephalus internus. The anastomosis may be made with the anterior posterior horn of the lateral ventricle. The fluid is drained partially into the subdural space and partially into the subcutaneous tissue. In this way the fluid is supplied for the gradual absorption of the liquid. The result in both cases operated on was very good. The late result in one case was likewise encouraging. After 3½ years the child's head is almost normal in its dimensions. The operative technique is simple, and can be carried out in rather debilitated children.

Archibald. Puncture of the Corpus Callosum.
Canad. M. Ass. J. 9 3, 1945.
 B Surg. Gynec. & Obst.

The problem of how best to give relief for cerebral compression from unlocalizable tumor is often a very difficult one. It is generally recognized that the subtemporal procedure of Cushing is the method of choice for the purpose of pure decompression. Sometimes, however, this method proves insufficient in spite of a large submuscular hernia the symptoms persist. In such cases the reason may lie in the coincidence of a large hydrocephalus in tetra, such as is known to complicate cerebral tumor not infrequently. It was experiences of this sort which led to the puncture of the roof of the corpus callosum in an attempt to relieve the internal pressure.

The technique of the operation is as follows. On the right side, about finger's breadth behind the coronal suture and 1 cm. from the mid line an opening is made with the Doyen burr about 5 mm. in diameter. A slit opening is made in the dura and care is taken to avoid any large cortical vein. Then a hollow curved cannula is pushed in over the convexity of the cortex till it strikes against the falx, which membrane guides the further progress of the cannula downward, till the corpus callosum is reached. The instrument breaks bluntly through this structure with very slight force, where upon the ventricular fluid is expelled, usually under some pressure.

The author reports four cases in which he performed puncture of the corpus callosum. Two were obstructive hydrocephalus of high grade in infants and the puncture gave only temporary relief. The

other two were cases of unlocalizable brain tumor. In the subtemporal decompression was first done and this gave temporary relief. A second operation was performed and the corpus callosum punctured. This resulted in control of the symptoms. In the other case the puncture of the corpus callosum was done first but relief was not obtained until a subsequent subtemporal decompression was performed.

JAMES H. SKILES

NECK

Poggiolini. Is It Always Possible to Avoid the Facial Twigs of the Cervico-Facial Branch of the Vth Pair in Operations on the Submaxillary Gland? (Est-il possible d'éviter toujours les rameaux faciaux de la branche cervico-faciale de la 5^e paire, dans les opérations sur la loge sous-maxillaire?) *Chir. Chir.* 9 3, xxi, 1940.

By Journal de Chirurgie.

Deviations of the lower lip are frequently noted after incisions in the submaxillary fossa and are due either to the division of the fibers of the platysma muscle or of the cervico-facial twigs of the facial nerve. They are comparatively unimportant, because, as a rule they disappear spontaneously in time. It would however be desirable to avoid them altogether if possible. According to the author, incisions must not be made in a region limited above by the posterior 3/5 of the lower border of the jaw below by a line parallel with, and 1 inch distant from, the prementum behind, by the anterior border of the sterno-mastoid muscle in front by a line directly uniting the two first mentioned.

Six diagrams show the lines of incision the author considers safe. It may be objected that these lines remain far in front of the region where adeno-phlegmons of a very common variety have to be drained.

PIERRE FERRAT.

Halpenny. The Thyroid and Parathyroid Problems. *Surg. Gynec. & Obst.* 9 3, xvi, 1935.
 By Surg., Gynec. & Obst.

The etiology of the enlargement and perverted secretion of the thyroid gland is still in doubt. It has been regarded as infection, but could not be so demonstrated by Chambers by bacteriological methods. Chambers' work, however, points to the presence of toxins. McCarrison produced goiter by using the filtrate of goitrous cells but when the filtrate was boiled goiter could not be produced. Short believes goiter to be due to some metal which unites with iodine to form an insoluble compound.

Experiments by the author show that when the thyroid is removed the parathyroids assume the histological features of the thyroid. It is also noted that structural changes take place in the pituitary body when the thyroid is removed. Rogers' experiments indicate that there is an intimate relationship between the thyroid, pancreas and adrenals. Carlson and Woelfel demonstrated that goiter lymph when injected intravenously did not give any untoward results.

Rogers discovered thyroglobulin and nucleoprotein as separate substances. Minute quantities of nucleoprotein injected subcutaneously produced acute thyroidism. The experiments up to date have not settled the question as to whether the symptoms are due to perverted or to increased thyroid secretion.

In the treatment of this condition the author recommends rest, quinine, hydrobromate, thyroid and Rogers antithyroid serum. Along surgical lines he advises partial removal of the gland using Crile's method of eliminating fear and nitrous oxide anesthesia. Dunhill operates in all cases and uses local anesthesia.

Turn. Morphological Studies in Experimental Cretinism. *J. Exp. Med.* 93, xiii, 695.

By Surg., Gynec. & Obst.

Morphological observations were made on a number of rabbits which were thyroidectomized at the age of two or three weeks. At least two animals out of each litter were kept as controls. All were weighed at regular intervals. The present paper is based on a series of about twenty-five autopsies. The important observations may be summarized as follows:

Degenerative changes were noted in practically every parenchymatous organ. The most striking of these changes was serious limitation by the most active cells of these organs. The changes noted in the glands of internal secretion corroborated the statement that removal of one gland of internal secretion results in changes in all the others. In this case degenerative changes were marked in the hypophysis, thymus, ovary and testes. Male hyperplasia was seen in the Islands of Langerhans and the medulla of the adrenal glands.

Turn concludes that in the rabbit thyroidism is responsible for grave degenerative changes in practically all organs and tissues of the body and that many of the symptoms of cretinism have an anatomical basis in organic cellular changes.

J. F. C. WOOD.

Kahn. The Frequent Occurrence of Mild Cases of Basedow Disease and the Favorable Influence Exerted upon Them by Hygienic-Dietetic Factors. (Über das häufige Vorkommen leichter Basedowfälle und ihre günstige Beeinflussung durch hygienisch-diätetische Faktoren.) *Med. Klin.* 93, ix, 834.

By Zentralbl. f. d. ges. Chir. Göttingen.

The author is able to observe many recurrences with "mild Basedow" disease, the diagnosis being confirmed by Rehn. If ordered them to service and in spite of the severe bodily exertion incident to service an improvement and even disappearance of all nervous and cardiac symptoms set in. The conclusion is drawn that Basedow disease is not always to be considered etiologically as a thyrotoxicosis, but that the primary factor frequently is disease of the nervous system. The condition improves under

carefree and hygienically favorable life, even though absolute rest is not adhered to. The author believes with Kerschmann that the vaso-sympathetic cause of Basedow's must be accepted in many cases. The fact that cure is obtained by operation does not contradict the theory as secondary thyroid dangers also may induce the Basedow symptoms. A table showing the findings of eleven cases examined in the Charité is appended.

SCHWABE.

Mannaberg. An Attempt to Influence Basedow's Disease by X Rays Applied to the Ovaries. (Über Versuche des Basedowischen Krankheits mittels Röntgenbestrahlung der Ovarien zu beeinflussen.) *Woch. Klin. Wochenschr.* 93, xxv, 693.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Göttingen.

Based upon the theory of an interrelation existing between the thyroid gland and ovaries the author attempted to influence Basedow's disease by applying X-rays to the ovaries. The investigations were conducted on ten patients. In eight cases an increase in weight from 2.5 to 10 per cent occurred. In half of the cases the exophthalmos decreased or disappeared entirely in one instance. The pulse rate decreased considerably in some cases, in others only slightly. Tremor was influenced favorably. The circumference of the neck and menstruation were not influenced. In three cases existing diarrhoea disappeared after the first treatment. In cases which improved under X-ray treatment became once after the application of the rays to the thyroid gland, the third case remained unimproved.

LINCOLN.

Schloffer. The Operative Treatment of Basedow Disease. (Über die operative Behandlung der Basedowischen Krankheit.) *Pres. med. Wochenschr.* 93, xxxviii, 3.

By Zentralbl. f. d. ges. Chir. u. Gynäk.

The author discusses the relations between the thyroid gland and the thymus and between the former, trachea and the thyrovascular heart. With internal treatment only temporary improvement takes place. His operative treatment about 75 per cent of the cases results in cure. Death following the operation occurs only in advanced cachexia due to status lymphaticus. The operation usually performed is the excision of half lobe, preceded in each individual by ligation of the vessels. The thyroidea inferior should be saved on account of the danger of causing injury to the parathyroids. An aggravation of the symptoms occurs immediately after the operation, but about 1 day improvement sets in the restlessness, sleeplessness and tachycardia disappearing. Gradual recession of the other phenomena and increase in weight takes place. The exophthalmos persists for considerable time. Naturally any irreparable cardiac degeneration remains. In 70 per cent of the cases, however, general improvement occurs.

The author then states his own results. Early operation is advised. In acute cases it is best to

order rest cure, and a halt the disappearance of the stormy phenomena. The author warns against X-ray treatment iodine and thyroid preparations. At operation iodine should not be employed and

the loss of blood should be minimized. Local infiltration is the anesthetic of choice except in highly excited patients, when general narcosis has to be employed. BIEBERSTEIN

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Albrecht. The Internal Secretion of the Mammary Gland (Zur Frage der inneren Sekretion der Mamme). *Deutsche Gesellschaft f. Gynäk. u. Geburtsh.* Halle, 9. 3. May. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author comes to the conclusion that early removal of the breast in young lambs does not produce any appreciable influence upon the development of the animal as a whole or upon any system of organs, especially the genitals. It has no effect upon heat pregnancy and labor. The breast therefore cannot be considered an organ of internal secretion. The injections of mammary extract also did not lead him to suspect the presence of an internal secretion. The author's experiment confirms those of Fedoroff, Adler, Schiffman and Vissartell in that an inhibition of the ovary function follows the injection of mammary extract, even up to complete cessation of menstruation in a woman, but it is doubtful if this action is specific for mammary extract. Different observations lead to the supposition that other organic extracts possess toxic action. The action is probably due to substances of the nonlactating breast which physically do not enter the circulation and are absorbed only during lactation, when they are able to produce their inhibitory action upon the ovaries.

Selznickerski. Paget Disease (Zur Frage der sogenannten Krebserkrankungen der Brustdrüse). *Chir. Arch. Poljmesenski*, 9. 2. 1906, 116. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The treatment consisted of 66 applications of Finzen light, which produced no improvement. Röntgen therapy produced some healing. After three years of rapid advancement with some calcareous deposits, the breast was removed and the axilla cleaned out. Healing followed. After careful microscopical examination the author arrived at the conclusion, that it is impossible to differentiate between the so-called Paget disease and the squamous-celled carcinoma which develops on the base of chronic inflammatory condition. HENSEN

Epslein. Amputation of the Intrascapular Thorax (Zur Frage der Amputation interscapulothoracica). *Chirurgia*, 9. 3. 1906, 344. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

This operation is one of those severe surgical attacks which are but rarely executed. According to current statistics compiled by Nedajelski there are 28 cases reported in the literature with defi-

nite data for prolonged observation. Thirteen patients died as the result of the operation. The combined statistics are as follows: death 10 to operation, 36 per cent recurrence, 33 per cent cures lasting less than a year, 30 per cent and cures lasting longer than one year 7 per cent. These figures are not so bad as they seem, since many of the cases date back to the pre-antiseptic age. The author observed five cases, three of which have previously been reported, all ending in recovery.

Two types of operative procedures are employed for these cases: one school (Poszren, Tulio, Degenel, Owrtschnikoff) employing conservative method, endeavoring to accomplish their purpose with resection, and the other school (Nancréde Ajello, Pranschnikoff, Berger etc.) employing a radical method, removing the entire extremity and shoulder girdle. The author proposes a procedure based on the manner of spread of these tumors by the lymph and blood-stream of the shoulder. The operation consists in the removal of half of the shoulder girdle, the scapula and clavicle and resection of the humerus; the upper extremity can, however be saved. According to this method a woman, forty-five years old was operated. She had a tumor the size of a child's head involving the left scapula. At the operation the scapula and the acromial end of the left clavicle were removed. After several plastic operations the patient was discharged with a dragging shoulder but a functional hand and forearm. She died later from severe paraproctitis and sepsis. The tumor proved to be a sarcoma. SCHAAKE

Carson. Interscapulothoracic Amputation of the Shoulder. *Ann. Surg. Phila.* 9. 3. 1906, 706. By Surg., Gynec. & Obst.

Carson states that this operation is indicated in a great many cases and done in very few judging by the number of cases reported. The conditions demanding such an operation are:

1. Traumatism of the shoulder including gunshot wounds.

2. Cases of extreme bone disease of the shoulder and upper arm.

3. All cases of sarcoma of the shoulder and arm, except possibly those of giant-celled sarcoma limited to the lower two thirds of the humerus.

4. All cases of carcinoma involving the upper half of the arm and in some cases of carcinoma of the breast, where the axilla and arm are involved.

5. Some cases of t. berculosis.

Radical amputation should be insisted upon just as soon as a positive diagnosis of sarcoma is made.

Rogers discovered thyroglobulin and ucleoprotein separate substances. Min quantities of nucleoprotein injected subcutaneously produced acute thyroidism. The experiments at date have not settled the question as to whether the symptoms are due to perverted or to increased thyroid secretion.

In the treatment of this condition the author recommends rest, quinine, hydrobromat, thymol and Rogers antithyroid serum. Along surgical lines he advises partial removal of the gland, using Crile's method of ligating fear and nitrous oxide narcosis. He will operate on all cases and use local anesthesia.

Thyroid Morphological Studies: Experimental Cretinism. *J. Exp. Med.* 1910, 619.
By Surg. Cyner & Ober.

Morphological observations are made on a number of rabbits which are thyroctomized at the age of 1 or three weeks. At least 10 animals out of each litter were kept as controls. All were weighed at regular intervals. The present paper is based on a series of about 100 rabbits. The important observations may be summarized as follows:

Degenerative changes were noted practically every parenchymatous organ. The most striking of these changes was serious inhibition by the most active cell of these organs. The changes noted in the glands of internal secretion corroborated the statement that removal of one gland of internal secretion results in changes in all the others. In this case degenerative changes were marked in the hypophysis, testes, ovaries, adrenal glands and the placenta. Even the islands of Langerhans and the medulla of the adrenal glands.

The conclusion is that the blood thyrotoxicosis is responsible for grave degenerative changes practically all organs and tissues of the body and that many of the symptoms of cretinism have anatomical basis in organic cellular changes.

Klein: The Frequent Occurrence of Mild Cases of Basedow Disease and the Factors Exerted upon Them by Hygienic-Alimentary Factors. *Oberärztlicher Vortragskursus in der Kaiserlichen Universität zu Berlin.* 1910, 114.

The author states that in many cases of mild Basedow disease the diagnosis being confirmed by Reber's ordered treatment, and in spite of the severe bodily exertion incident to service improvement and even disappearance of all nervous and cardiac symptoms set in. The conclusion is drawn that Basedow's disease is not always to be considered etiologically as thyrotoxicosis, but that the primary factor frequently is disease of the nervous system. The condition improves markedly

of rest and hygienically. To isolate rest is not adhering to the Kuratshman's cause of Basedow's disease. The fact that cure is obtained contradicts the theory as also may induce the fact showing the findings of Charité is preceded.

Wannenberg: A Attempt Disease by X-Ray. *Oberärztlicher Vortragskursus in der Kaiserlichen Universität zu Berlin.* 1910, 114.

Based upon the theory that the thyroid gland is the cause of the disease, the author conducted an experiment on ten guinea pigs in eight from half of the cases disappeared entirely, but decreased considerably. The circumference were not influenced. Two cases which became worse after the thyroid gland removed.

Schlosser: Thyroid Disease. *Oberärztlicher Vortragskursus in der Kaiserlichen Universität zu Berlin.* 1910, 114.

The author discusses thyroid gland disease from an internal treatment point of view. He states that the disease occurs in all lymphatic systems. The excision of the gland by ligature inferior should be avoided. The removal of the gland is not recommended. The author states that the disease is not always to be considered etiologically as thyrotoxicosis, but that the primary factor frequently is disease of the nervous system. The condition improves markedly

ed in overcoming certain difficulties and a voiding certain dangers of intrathoracic resection of the esophagus. It calls attention to Sauerbruch's view that only the carcinoma near the neck or near the cardia should be resected, and that the carcinoma in the middle portion should be left untouched. In contrast to this the author states that the carcinoma near the cardia is not only rarer than those in the middle portion but is also more frequently associated with operable metastases. The carcinoma in the middle portion therefore plays a more important rôle in the problem of cancer of the esophagus. Among the dangers of the operation were injury to the lungs and leakage from the oral stump of the esophagus after resection.

The patient was a woman 6 years old. The tumor was situated in the middle portion of the esophagus, beginning just below the h of the aorta and extending one and three fourth inches down. Gastrostomy had been performed some time previous. An incision was made through the whole length of the seventh intercostal space, from the posterior end of which it was extended forward by cutting through the seventh, sixth fifth and fourth ribs near their borders. This gave excellent access to the parts. Extensive adhesions between lung and parietal pleura were separated. The portion of the esophagus below the tumor was lifted out of its bed after laying the vagi aside. Over the tumor the dissection of the vagi was more difficult requiring

the division of some branches crossing it. During this procedure the pulse remained steady between 93 and 96. The dissection of that part of the esophagus which passed behind the arch of the aorta proved difficult. It was accomplished by dividing the aorta after dividing a number of its thoracic branches.

The tumor was attached to the left bronchus which was cut during the process of separating the tumor from it. This was afterward sutured with silk. The dissection of the esophagus was continued all the way up to the neck. It was divided with a cautery at a safe distance below the carcinoma after double ligation the lower stump was invaginated and the upper brought out through incision in the neck at the anterior border of the left sternocleidomastoid muscle. It was then placed under the skin of the chest the cut end, after resection of the carcinoma, being sutured to an incision in the skin made for that purpose. Thus an infection of the pleura from the esophagus was rendered impossible.

The thorax was closed without drainage. The patient made a good recovery. On the seventh day when the last stitches were removed, the wound was completely closed. Feeding is done by introducing the upper end of gastrostomy tube into the end of the esophagus when the patient swallows, the food passes through this tube into the stomach. There are several methods of esophagoplasty that could be employed. The author urges early diagnosis and early operation.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Kuestner: A Pedunculated Necrotic Tumor of the Abdominal Wall. Region of the Umbilicus (Ein nekrotischer aber langgestreckter Tumor welcher breit gestielt in der Gegend des Nabels sass). *Deutsche Gesellschaft für Gynäkologie und Geburtshilfe*. By Zentralblatt für Gynäkologie und Geburtshilfe. A 34 year old multipara, who aborted 9 years previously, complained of pain in the right inguinal region. About 2 weeks later the skin in the region of the umbilicus ruptured and pus exuded. In short time a pink tumor protruded, which later turned black.

Bimonthly examination showed an empty pelvis and the uterus lying just behind the abdominal wall, which was densely infiltrated. Fever was present. The tumor was removed with Paquelin's cautery. The stalk consisted mostly of fibrous tissue and the tumor smooth muscle with some connective tissue. In 2 months the epithelium was entirely restored, and the infiltration of the abdominal wall disappeared. It was then discovered that the left border of the tumor was adherent to the abdominal wall in the region of the umbilicus. The histological findings as well as the fixation of the

tumor could speak more in favor of subserous myoma of the uterus than necrotic abdominal wall desmoid. It is not improbable that the stalk of the subserous polyp became attached to the tumor becoming adherent to the wall of the abdomen in the umbilical region where the rupture took place.

Machefer: Biliary Peritonitis without Perforation of the Bile Passages (Les peritonites biliaires sans perforation des voies biliaires). *Thèse de doctorat*. Par 93. By Journal de Chirurgie.

This study is based on a personal case and sixteen found in the literature. The author thinks the peritoneal effusion in these cases is really bile though the macroscopical appearance is the only proof as chemical examinations are either lacking or doubtful. He does not believe that the condition is ordinary peritoneal collection discolored by bile resorption. The bile may reach the peritoneal cavity through an unrecognized perforation of a duodenal ulcer, through a perforation of the duodenum, the gall-bladder or the bile ducts or it may filter through the surface of the congested liver or the walls of the gall-bladder. The latter is the hypothesis accepted by the author. The filtration is

Keen thinks it possible that when the disease has invaded the medullary canal, operation may already be too late on account of the physiological fact that the bone marrow has a share in the production of the red blood cells.

Notwithstanding the fact that the operation is a long and tedious one, the mortality is only about 4 per cent in tumor cases and 5 per cent in trauma. The chief dangers are due to hemorrhage and shock. The hemorrhage may be very materially limited by tying the axillary artery and vein, a procedure which is made comparatively easy by resecting part or all of the clavicle as recommended by Le Conté. Carnon does not think this procedure necessary unless the clavicle be diseased and states that in his experience the difficulties of the operation are very much lessened by first dividing the pectoral muscles from above downward as close as possible to their origin, for the reason that it is very easy to include the artery and vein in the clamps applied to the muscles, and afterwards resecting the middle third of the clavicle either without removing the periosteum, where the clavicle is not involved, or subperiosteally where the clavicle is involved. Having done this, the subclavius muscle and fascia covering the vessels and nerves should be carefully divided and drawn outward, thus fully exposing the vessels and nerves. The artery should be tied first, the limb elevated until it is blanched and the vein tied. By this procedure much blood is saved.

By blocking the nerves, shock may be lessened or even prevented in some, though not in all cases, depending somewhat on the amount of hemorrhage. Either by the intratracheal insufflation method is the anesthetic of choice since it seems to limit shock and diminish post-anesthetic effects.

In traumatic cases infection plays a very important rôle, yet this is not necessarily a fatal complication since Treves operated on such cases on the battle-field and complete recovery resulted. The two cases reported by Carnon—one with epithelioma following an old extensive burn of the arm, the other round celled sarcoma of the arm, probably arising from the periosteum—made good recoveries. If after these patients are up and about they complain of lopedness, artificial shoulder and arm, properly fitted, will relieve this very annoying condition.

HARRY B. MATTHEW

Sternberg. Indications and Technique for Artificial Pneumothorax in Pulmonary Tuberculosis (Zur Frage der Technik und Indikation des künstlichen Pneumothorax bei Lungentuberkulose). *Verhandl. d. 19. Ver. d. Arch. d. allg. Chir.* St. Petersburg 9 3 22, 27.

By Zentralbl. f. d. ges. Chir. Gruppe

The author draws conclusions from forty-three cases treated by means of artificial pneumothorax. Puncture is to be preferred to open operation. The dangers of gas embolism can only be overcome if manometer readings are carefully made. The advantages of puncture are less trauma and fewer

chances of infection, as well as a higher percentage of successful results. The author succeeded in producing pneumothorax in all his cases in spite of the ease with which the opening healed. Future indications with gas must be governed strictly by the individual cases regarding the amount and the time intervals in order that the condition of the patient may not be seriously disturbed.

The author divides the indications into two groups. The first belong cases of advanced unilateral involvement which offer a poor prognosis, and above all those cases of diffuse unilateral aspiration pneumonia following hemorrhage, and followed by high temperature with little tendency towards resolution. The second group constitutes a relative indication and consists of cases in which toxemia has subsided but with marked unilateral anatomical changes, cases with small but rapidly advancing lesions and cases with brisk and frequent hemorrhages. Contrary to Forlanini, the author does not consider the establishment of pneumothorax advisable in incipient cases of tuberculosis since these respond well to other methods of treatment and since the production of pneumothorax is usually followed by hypertrophy of the right heart. Pneumothorax is contraindicated in advanced bilateral cases and in those complicated by cardiac and renal conditions.

VON SCHMIDT.

Sternberg. Artificial Pneumothorax for Pulmonary Hemorrhage (Über künstlichen Pneumothorax bei Lungenblutungen). *Verhandl. d. 19. Ver. d. Arch. d. allg. Chir.* St. Petersburg 9 3 22, 24. By Zentralbl. f. d. ges. Chir. u. L. Gruppe

This is a report of two cases of pulmonary hemorrhage with hopeless prognosis. After total injection of 500 cc of nitrogen, the hemorrhage was controlled. The temperature fell from 39° C. to normal in short time and the general condition was good.

VON SCHMIDT.

PHARYNX AND ESOPHAOGUS

Riggs. Cast of Epithelial Lining of the Esophagus from a Case of Chloroform Poisoning. *Proc. Roy. Soc. Med.*, 19 3, vi, Laryngol. Sect. 1. By Surg. Gynec. & Obst.

The patient drank and vomited one ounce of chloroform. On the third day she reached the coast. Treatment with blennorrh carbonica, lanoline and paroline accompanied by rectal feeding was continued thirteen days. Esophagoscopy three months later revealed no tendency of the esophagus to contract.

EARLE B. FOWLER.

Torck. The First Successful Case of Resection of the Thoracic Portion of the Esophagus for Carcinoma. *Surg. Gynec. & Obst.* 9 3 22, 624. By Surg. Gynec. & Obst.

After reviewing the causes of failure in the operation for carcinoma of the esophagus, Torck describes the method of operating by which he succeed-

ed in overcoming certain difficulties and avoiding certain dangers of intrathoracic resection of the esophagus. He calls attention to Sauerbruch's view that only the carcinoma near the neck or near the cardia should be resected, and that the carcinoma in the middle portion should be left untouched. In contrast to this the author states that the carcinoma near the cardia are not only rarer than those in the middle portion but are also more frequently associated with inoperable metastases. The carcinoma in the middle portion therefore play more important rôle in the problem of cancer of the esophagus. Among the dangers of the operation were injury to the vagi and leakage from the oral stump of the esophagus after resection.

The patient was a woman, 67 years old. The tumor was situated in the middle portion of the esophagus, beginning just below the arch of the aorta and extending one and three fourth inches down. Gastrostomy had been performed some time previous anaesthesia by tracheal intubation was employed. An incision was made through the whole length of the seventh intercostal space, from the posterior end of which it was extended upward by cutting through the seventh, sixth, fifth and fourth ribs near their tubercles. This gave excellent access to the parts. Extensive adhesions between lung and parietal pleura were separated. The portion of the esophagus below the tumor was lifted out of its bed after laying the vagi aside. Over the tumor the dissection of the vagi was more difficult requiring

the division of some branches crossing it. During this procedure the pulse remained steady between 93 and 96. The dissection of that part of the esophagus which passed behind the arch of the aorta proved difficult. It was accomplished by dislodging the aorta after dividing a number of its thoracic branches.

The tumor was attached to the left bronchus which was cut during the process of separating the tumor from it. This was afterward sutured with silk. The dissection of the esophagus was continued all the way up to the neck. It was divided with cautery at safe distance below the carcinoma after double ligation the lower stump was invaginated and the upper brought out through an incision in the neck at the anterior border of the left sternocleidomastoid muscle. It was then placed under the skin of the chest, the cut end, after resection of the carcinoma, being sutured to an incision in the skin made for that purpose. Thus an infection of the pleura from the esophagus was rendered impossible.

The thorax was closed without drainage. The patient made good recovery. On the seventh day when the last stitches were removed, the wound was completely closed. Feeding is done by introducing the upper end of a gastrostomy tube into the end of the esophagus when the patient swallows, the food passes through this tube into the stomach. There are several methods of esophagoplasty that could be employed. The author urges early diagnosis and early operation.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Kustner: A Pedunculated Necrotic Tumor of the Size of the Flat in the Region of the Umbilicus (Ein nekrotischer über Leutgroßer Tumor welcher breit gestielt in der Gegend des Nabels sass). *Deutsche Gesellschaft für Gynäk. u. Geburtsh.* 93. May. By Zentralblatt für Gynäk. Geburtsh. u. Gynäk. By a 34 year old multipara who aborted 1 year previously complained of pain in the right inguinal region. About week later the skin in the region of the umbilicus ruptured and protruded. In a short time pink tumor protruded, which later turned black.

Bimapsul examination showed empty pelvis and the uterus lying just behind the abdominal wall, which was densely infiltrated. Fever was present. The tumor as removed with Paquelin cautery. The stalk consisted mostly of fibrous tissue and the tumor smooth muscle with some connective tissue. In the middle the epithelium was entirely restored and the infiltration of the abdominal wall disappeared. It was then discovered that the left border of the uterus was adherent to the abdominal wall in the region of the umbilicus. The histological findings as well as the fixation of the

uterus would speak more in favor of a subserous myoma of the uterus than a necrotic abdominal wall dermoid. It is not improbable that the stalk of the subserous polyp became twisted, the tumor becoming adherent to the wall of the abdomen in the umbilical region, where the rupture took place.

Machefer: Biliary Peritonitis without Perforation of the Bile Passages (Les peritonites biliaires sans perforation des voies biliaires). *Thèse de doctorat* Par 93. By Journal de Chirurgie.

This study is based on personal case and sixteen found in the literature. The author thinks the peritoneal effusion in those cases is really bile though the macroscopical appearance is the only proof as chemical examinations are either lacking or doubtful. He does not believe that the condition is ordinary peritoneal collection discolored by bile absorption. The bile may reach the peritoneal cavity through an unrecognized perforation of duodenal ulcer through a perforation of the duodenum, the gall-bladder or the bile ducts or it may filter through the surface of the congested liver or the walls of the gall-bladder. The latter is the hypothesis accepted by the author. The filtration is

supposed to take place either through the hypertrophied mucous diverticula (canals of Luschka) or through abnormal lymphatic channels, or account of chemical changes in the composition of the bile. Machefer agrees with authors who ascribe it to changes in the walls of the gall-bladder (sometimes caused by the Eberth bacillus) biliary hypertension due to blocking of the passages by calculi being favoring, but not altogether necessary factor. The real mechanism, which would account for the fact that the above mentioned lesions are common while biliary perforations are so rare is unknown.

The effusion contains, besides bile fluid exudate produced by the peritoneal reaction. According to the degree of severity of the bile there is an acute peritonitis with little purulent fluid and few pseudomembranes, or subacute peritonitis with large amount of bile-colored serum. This effusion is always free; it collects at first on the right side, it may remain there, without any adhesions to confine it. It sometimes contains typhoid or colon bacilli.

The signs are those of peritonitis. The onset is sudden. There is usually no jaundice as there is in biliary peritonitis following perforation of the bile passages. The peritonitis is either cut with little effusion and prompt fatal outcome, subcut with large effusion and attenuated symptoms. The prognosis is unfavorable. The diagnosis from appendicitis, peritonitis due to perforation of the bile channels and intestinal obstruction is difficult.

The treatment is evacuation of the collection followed by cholecystectomy or cholecystostomy when the common duct is occluded or obstructed. The postoperative treatment is that of all cases of peritonitis. L. HORNAD

Clairmont and Von Haberer. Remarks on the Contribution of Prof. Naewerck and Dr. Lübke. Does Biliary Peritonitis Exist Without Perforation of the Bile Passages? (Bemerkungen zu der Arbeit von Prof. Naewerck und Dr. Lübke. Gibt es eine gallige Peritonitis ohne Perforation der Gallenwege?) *Wien klin. Wochenschr.* 19, 3, xvi, 80.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The authors reported case of biliary peritonitis without perforation of the biliary passages, in which also the pathologist was unable macroscopically to find any perforation or even suspicious areas. Contrary to the view of Naewerck and Lübke who consider perforation of the bile passages as always necessary for the formation of biliary peritonitis, the authors on the basis of the published cases come to the conclusion that the following pathological and anatomical findings are the basis of biliary peritonitis without perforation. A slit-like perforation demonstrable only at autopsy is present. A primary thinning of the wall (microscopically demonstrable) exists through which the bile has eroded. 3. On account of dilation of the subserous bile passages of the liver small per-

foration has probably resulted. 4. In other cases perforation may not be demonstrable even at autopsy but an abnormal permeability of the walls to bile is present as in the case reported. In all these conditions the same clinical picture prevails at operation: the surgeon is unable to find the place of exit of the bile and attack it surgically. U. von ECKEN.

Baradlin. Pneumococcal Peritonitis (Zur Frage der Pneumokokkenperitonitis). *Chirurgia*, 9, 3, xviii, 577.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In 1909 Rohr collected 59 cases of pneumococcal peritonitis from the literature. In Russia the cases have but rarely been observed and described. The author reports two cases operated upon successfully. The first patient was a girl six years old, who became ill with attacks previously with abdominal symptoms. In the left hypochondrium fluctuating swelling developed. At the operation, after opening the peritoneal cavity about three glasses of greenish-yellow pus were evacuated. The cavity was then tamponed. A cure resulted. The second case was a boy fourteen years old, who became ill with similar symptoms. Here also an encapsulated accumulation of pus developed which was drained by laparotomy and the cavity tamponed. The patient recovered.

In both cases the bacteriological examination of the pus showed pure culture of pneumococci. The way by which pneumococci enter the abdominal cavity are variable. In pleurothorax the pneumococci enter through the diaphragm. Pathologically and clinically two large types can be differentiated. The localized and the general diffuse. The localized form offers a decidedly better prognosis. Both of the author's cases belong to this group. The diagnosis of pneumococcal peritonitis is very difficult, as only general peritonitic symptoms appear. Rohr's statistics show 86.3 per cent recovery for the localized form and only 68 per cent for the diffuse form. The treatment, of course, must be operative and at the earliest possible moment. SCHWAB.

Wendel. Retrograde Incarceration; "Hernia en W" (Die retrograde Incarceration, Hernie en W). *Ergebn. d. Chir. u. Orthop.* 1914, 4, 186.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Under retrograde incarceration and hernia en W have been described cases in which beginning complete gangrene of loop of bowel not lying within the hernial sac has occurred, the contents of the sac being entirely normal. Both terms are however not synonymous. hernia en W can occur without incarceration and retrograde incarceration can occur also in other hernias. In retrograde incarceration of free end of organs as the appendix, the omentum and vary the relations are very simple if the gangrene is easily explained as being due to partial or complete constriction of the vessels leading from the abdominal end of the organ. The condition is different, however in the case of the bowel.

The author has collected 78 cases from the literature and comes to the following conclusions. Retrograde incarceration occurs most commonly in old people with old and large hernias. The contents of the hernia may consist of one to three separate loops of bowel, or of mesentery alone. The loops are usually incarcerated but not always. The connecting loop may be intact. Although the herniated loops may be incarcerated. Frequently the hernial loop is much altered and gangrene usually sets in remarkably early. The mesentery of the connecting loop may be incarcerated in the hernia or not. Even when it is not incarcerated it may show marked vascular changes which are sharply limited and may form arcade-like figure. The genesis of hernia en W. therefore is not identical with the genesis of retrograde incarceration. The gangrene or the nutritional disturbance of the connecting loop is due either to incarceration of the mesentery

compression of the same, account of tension and traction possibly also account of kinking of the distended connecting loop. The distention and fecal stasis with its bacterial and mechanical disturbances also can aid in the production of gangrene of the connecting loop. The author divides combining the two conditions described as retrograde incarceration and hernia en W. under the term retrograde incarceration, limiting it only to conditions in which during hernia that loop of bowel continuous with the herniated loop shows decided nutritional disturbances, the explanation of which must be sought in the hernial relations and not purely abdominal causes.

The author then discusses the diagnosis, prognosis and treatment. He divides rising resection rather than an enterostomy. Outcome.

Swetschalkow. A Case of Spontaneously Incarcerated Diaphragmatic Hernia of the Stomach, the Spleen and Loop of Bowel (Ein Fall von spontan incarcerierter diaphragmaler Hernie des Magens, der Milz und einer Darmschlinge). *Monatsschr. Chir.* 9, 3 April.

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

A healthy young Austrian sailor twenty-four years old, while performing some labor was taken ill with severe pains in the epigastrium. A milking act in shortly after and was repeated during the next few days. The epigastrium was sensitive to pressure and rigid. During the next two days the objective findings increased. The patient passed flatus and fecal matter. Pulse 64. The tongue was moist but coated. On the third day after the onset, cyanosis of the head as present especially of the ears. The pulse was hardly palpable on the left side. On the right it was weak, 35 per minute. The patient complained of pains in the epigastrium especially during deep expiration. A vomiting or singultus, but marked meteorism in the upper abdomen, of the left flexure of the colon, transverse colon, ascending colon and right iliac fossa was present. The left iliac fossa as sunken and dull, whereas the other

parts were tympanitic over the lower portions of the left lung, tympanitic sound was heard, gradually merging into the stomach tympany. The abdomen was highly sensitive, rigidity marked, tongue moist and clear.

After the administration of high enemas of oil and seltzer water little fecal matter and much foul gas were expelled. The subjective condition improved, the meteorism decreased. The rigidity disappeared over the entire abdomen except in the epigastrium. Pulse 90. Cyanosis much less. The operation was therefore postponed. On the following day the cyanosis of the face and ears returned. Pulse 120. The abdomen was not distended or sensitive. Edge of the liver became palpable. It was soft and not sensitive. Cardiac tones clear and in normal location. The tympany over the lower edge of the left lung less marked. No vomiting, but the patient regurgitated everything that he swallowed. After another high enema some gas was expelled. The patient passed good night. The abdomen next morning was soft and insensitive. The liver was markedly enlarged but not sensitive. The epigastrium was not distended, but was sensitive. A swelling was observed over the 3-4 rib interval to the left mammary line. Tympany was definite over the lower border of both lungs, more marked on left side. Cardiac dullness not definite and the impulse as absent. The patient could be only on the left side, and regurgitated everything he swallowed. By evening the heart was pushed further to the right. The left half of the thorax was tympanitic posteriorly the falling drop sound could be heard. Hippocratic succussion could be elicited.

A diagnosis of diaphragmatic hernia was made and the operation performed by Gerulanos. The stomach was absent from the abdominal cavity. The diaphragm the left side was found bulging into the abdomen and tense. The edges of a tear could be palpated as firm tense bands. The abdominal incision was enlarged transversely and the stomach punctured through the diaphragm. It became possible to introduce the fingers into the diaphragmatic wound and enlarge it. The stomach filled the entire left thoracic cavity to the second rib. Adhesions had formed between it and the pleura and could not be replaced. Following further enlargement of the diaphragm-opening the heart ceased to beat and expiration stopped. It was impossible to revive the patient. Only with difficulty was it possible to separate the stomach from its adhesions. A loop of bowel was first brought out, then the spleen and finally the gangrenous stomach.

Important points in the differential diagnosis from other incarcerations are the cyanosis, the unequal radial pulse, the clean moist tongue, the regurgitation of the small amount of fluid without any attempts at vomiting, the tympany over the lower portions of the lungs and the displacement of the heart.

Outcome.

Schmidt: The Radical Operation for Intestinal Hernia with Incomplete Hernial Sac; Sildung Hernia (Zur Radikaloperation der Darmbrüche mit incompletem Bruchack Darmgleitbrüche) *Deutsche Zeitschr. f. Chir.* 913, cxviii, 266.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Schmidt reports the history of three interesting cases observed and operated by him. He then discusses the work of Sprengel, Finsterer and Sodeck, as well as the anatomy and operative technique of these hernia. From the results of his work he concludes that in a sliding hernia of the colon on the right side a one-angled loop of colon is involved whereas on the left side a two-angled loop enters into the hernia. In opening a sliding hernia extreme care must be employed, so as not to open the bowel. The reposition of such a sliding hernia must be accomplished by invagination, which is illustrated by drawings.

Superfluous parts of the free hernial sac are to be removed, but one must be careful not to divide the blood-vessels supplying the bowel. Before severing the sac it is held against the light to see if it is empty. In general its anterior and inner surface may be removed without danger, as the bowel and vessels lie posteriorly and laterally. If reposition is difficult the abdominal wall may be split in the angle of the outer part of the ring. If the spermatic cord is closely adherent to the sac it is advisable to implant the testis into the abdomen rather than to castrate. VON TAYLOR

Tate: Sarcoma of the Omentum. *Am. J. Obst. & Gynec.* 93, lxxv, 42. By Surg., Gynec. & Obst.

Tate reports a case of sarcoma of the omentum and tabulates 5 cases which he finds in the literature to date. His patient was male, 3 years of age, who had a left inguinal hernia for years which had required the use of truss. The rupture had occasioned no particular discomfort until three months previously when it had begun to produce some pain. In the few weeks prior to operation the hernial mass had started to increase in size so that for these two reasons the patient was operated. At operation the mass was the size of coconut and was composed of omentum in which was embedded the testicle and cord. There was also considerable amount of paraffin in the sac which had been injected two years previously by some one with the attempted cure of the hernia. The mass with testicle and paraffin were removed and the hernia repaired. The microscope showed the mass to be round-celled sarcoma of the omentum while the testicle was normal. The patient was seen 18 months later and had a large secondary growth in the abdomen, but refused further operative attention.

† SPENCER HEADLEY

Benedict: Chylous Cyst of the Mesentery. *Surg. Gynec. & Obst.* 93, xvi, 605. By Surg., Gynec. & Obst.

The author supplements Friend's list of 53 cases in the issue of the same journal for July 92.

Excluding duplicates, the list is brought up to 96 cases although Benedict had previously excluded four in Friend's list as probably pseudo-chylous and thinks that few more may be so or that duplicates may exist on account of listing under different names. He carries the literature back to Foery, J. 1869, and adds four other cases antedating Rokitsansky's report of 84 commonly regarded as the beginning of the history of this condition. There seems to be no sex or age predilection and the prognosis is surprisingly good: 60 recoveries, 14 deaths. Unspecified results after operation and cases diagnosed at necropsy some of the last having lived for years with the tumor.

Aspiration was performed in 5 cases, drainage mainly after preliminary incision in 24, some form of excision or resection in 5, and marsupialization in 4. The result appeared to depend not on the method of operation, but upon the condition of the patient, i.e. whether he had an occlusion of bowel, peritonitis, sepsis, etc.

Drummond: The Surgical Aspects of Persistent Meckel's Diverticulum. *Surg. Gynec. & Obst.* 93, xvi, 658. By Surg., Gynec. & Obst.

The paper is based upon a review of the surgical records of the Royal Victoria Infirmary, Newcastle upon-Tyne, extending over a period of twelve years.

There were twenty-two cases of acute abdominal disease resulting from persistent Meckel's diverticulum, seven of which became inverted into the small intestine and produced intussusception — making 7 per cent of all the cases of intussusception from January 1900, to June, 1912. Intestinal obstruction (two due to acquired adhesions occurred in 6 cases. In two cases there was strangulation of the small intestine over the diverticulum, which was adherent to the umbilicus. In neither case in which the diverticulum adhered to the umbilicus, secondary volvulus of the lower ilium, cecum and ascending colon occurred. The remaining six cases there was evidence of inflammatory change in the diverticulum.

An attempt is made to show that speaking generally certain type of diverticulum is responsible for definite and specific lesion. A Meckel's diverticulum of unusual length (6 or 8 inches) in addition to causing intestinal obstruction may be inflamed or strangulated as the result of interference with its blood supply by a loop of implicated small intestine. Diverticulum adherent to the umbilicus may cause strangulation of the small intestine or produce secondary volvulus. The small cone-shaped diverticula become inverted into the bowel and produce intussusception.

The lesions are considered under three headings, viz., obstruction, inflammatory conditions and more rare forms such as enterocystis, calculi, etc., though not infrequently the pathological condition cannot be claimed under one of these headings. One case is recorded of an intestinal obstruction, gangrene of the Meckel's diverticulum and calculi.

In dealing with the differential diagnosis of the lesions produced by Meckel's diverticulum appendicitis is stated to be the most frequent source of error. The reason that lesions of Meckel's diverticulum are confounded with appendicitis is that both organs are capable of undergoing the same pathological changes, e.g. peritonitis, obstruction, invagination, harboring of calculi, etc. Other lesions such as pathological conditions of the gall-bladder and intestine may be confounded with Meckelitis.

GASTRO-INTESTINAL TRACT

Borchgrevink Acute Dilatation of the Stomach and Its Treatment. *Surg. Gynec. & Obst.*, 913, xvi, 662.
By *Surg. Gynec. & Obst.*

The author reports five cases successfully treated by abdominal posture. He thereupon gives a review of 37 cases published since Schnitzler's introduction of the postural treatment in 1895. Of thirty-one cases not treated or medically only twenty-nine died. Of 48 cases, treated by stomach tube 34 recovered. Of 3 operated cases, 5 survived after gastro-jejunostomy after gastrostomy and 3 after their non-incised stomachs had been emptied during laparotomy. Of 26 cases treated by abdominal posture, 16 from the gastric dilatation and one after the condition had been cured by the postural treatment. In two of the cured cases the abdominal position was little used and seemed to be without effect. In the other cured cases, the abdominal posture more often in the presence of threatening symptoms, and partly, when longer treatment by the stomach tube had been without result, has brought about noticeable and often surprising effect. In three cases, which were laid on the right side, the effect was excellent. Lying on the left side did not have any decided effect.

Considering the etiology of acute gastric dilatation, Borchgrevink draws the following conclusions, which are based partly on the good results obtained by abdominal posture. The dilatation primarily occurs as a sequel to overloading of the stomach, either by excess in food or fluids, by stagnation of the contents of the stomach and following gastric hypersecretion. 1. The dilated stomach produces the arterio-mesenteric occlusion of the duodenum as it compresses and empties the small intestine and, increasing in size, pushes it into the pelvis, thus tightening the root of the mesentery. 3. By abdominal posture the arterio-mesenteric compression is relieved and the stomach allowed to empty its contents into the bowel.

Heyrovsky Histological Examination of the Mucosa in Ulcer and Carcinoma of the Stomach (Histologische Untersuchungen der Magenschleimhaut bei Ulcus ventriculi und Carcinom). *Deutsche Zeitschrift für Chirurgie*, 93, 199.
By *Zentralblatt für Chirurgie* und *Grenseph.*

Detailed examinations in 20 cases gave the following results. In more than half decided gastritis

was found. In gastric ulcer accompanied by gastritis no definite cause of the latter was made out. No change in the fundus glands, characteristic of hypersecretion and hyperacidity was demonstrated. The follicular erosions found commonly in ulcer probably are important in the formation of cancer. The ulcer patients with gastritis after an anastomosis had more gastric disturbances than those without a gastritis. The staining technique and the literature on the subject are appended. *TRIEDMANN*

Grüber The Relations between Carcinoma and Peptic Ulcer on the Upper Digestive Tract (Beitrag zur Frage nach den Beziehungen zwischen Krebs und peptischen Geschwür im oberen Digestionstrakt). *Zeitschrift für Krebsforschung*, 93, 191, 1915.
By *Zentralblatt für Chirurgie* und *Grenseph.*

The article contains the statistical investigations of the results of about ten thousand post-mortems in regard to the frequency of peptic ulcer of the esophagus, stomach and duodenum on the one hand, and carcinoma on the other. Furthermore it gives a detailed description of the microscopical and macroscopical findings of several interesting cases, with thorough discussion. The author comes to the conclusion that the statistical findings at post-mortem show absolutely no point in favor of the contention that carcinoma develops particularly on the basis of peptic ulcer. The views of Payr and Kuttner based particularly upon surgical material are criticized as lacking convincing proof. The histological proof of the development of carcinoma on the basis of ulcer, according to the author, is found only rarely. The clinical as well as the anatomical methods of investigations cannot feasibly be employed, as correct statistical information is not available. *MATTHE*

Seidel The Perforated Gastric Ulcer (Über das perforierte Magengeschwür). *Zentralblatt für Chirurgie*, 93, 191, 1915.
By *Zentralblatt für Chirurgie* und *Grenseph.*

Seidel reports twenty-five cases of perforated gastric ulcers which were operated upon with a mortality of 38 per cent. It is most important to close the perforation perfectly and this is effected in the best way by placing auxiliary sutures parallel to the border of the perforation. On these auxiliary sutures the real closing sutures find a secure hold. Gastro-enterostomy was as a rule not added (only in one case). It offers, when performed later on, much better prospect for good healing. *KRAMER*

Palfrey The Administration of Ox Bile in the Treatment of Hyperacidity and of Gastric and Duodenal Ulcer. *Am. J. Med. Sci.*, 93, 1915.
By *Surg., Gynec. & Obst.*

This report embodies the results of treatment of fifty cases of the most common form of dyspepsia characterized by sour stomach, heart burn, or pain after eating. A review of the physiology of the pylorus shows that the control of the pyloric

sphincter depends upon the degree of alkalinity and acidity in the duodenum. When the duodenal contents are alkaline the pylorus opens, when they are acid it closes. No degree of acidity on the gastric side can cause the pylorus to open.

According to Plicher the acid contents of the duodenum are neutralized by the bile and pancreatic juice as well as by the duodenal secretion.

This action may be enhanced by the administration of ox bile per os.

The bile pills are prepared after the directions of Pfaff, each pill containing 0.55 gram of dried ox bile and coated with solid t. coconut tnat and prevent dissolution in the stomach. Two or three pills are given three times a day for a week the number is then reduced.

As the author states, this report is preliminary but the results obtained in fifty cases are worth reporting.

II A. PIERCE

Mayo Palliative Operations for the Relief of Incurable Carcinoma of the Stomach. *S. P. M. J.* 93 xv 260. By Surg. Gynec. & Obst.

A high percentage of individuals with cancer re- linquishable when they present themselves for examination and only in certain percentage is palliative operation indicated. I performing palliative operation the surgeon assumes great responsibility. He must be quite sure that the palliation will be sufficient to repay the patient for the expense and suffering and for time spent in the hospital, and he should take into consideration that in the background is a well-lighted public opinion to be influenced by success or failure. Palliative operations are indicated for the relief of one or more of several conditions which may develop in the gastro-intestinal tract the most common of which is obstruction. A differential diagnosis cannot always be made between malignant and benign ulcerations unless specimen be removed for macroscopic examination. Moreover when specimen is obtained for examination it may be taken from a point near but not actually part of the disease and thus give an incorrect version of the pathology. If specimen cannot be obtained and diagnosis is made on the clinical findings only the patient should be given the benefit of the doubt and the condition treated as though it were benign.

Twenty-two patients have recovered from palliative operation performed in the clinic for clinical or doubtful cancer of the stomach, and whose after-history was traced, lived more than one year. Fifty per cent lived from one to five years, the others died supposedly from malignant disease. Cancer the vicinity of the cardia producing obstruction occurs in about 10 per cent of the cases of gastric cancer. Gastrostomy is useful means of palliation these cases and should not be delayed to the last resort. The Welch method of operation is ordinarily performed, but the Stamm-Rader technique is equally effective. A number 6 English catheter is used. Gastro-enterostomy is a

satisfactory palliative procedure in cases of inoperable malignant obstructions of the pylorus and for those cases having huge excavations in the posterior wall of the stomach which are usually carcinomatous but occasionally benign. If the tumor be large and more or less fixed, as it usually is in inoperable cases, anterior gastro-enterostomy after the Wolfer-Hartmann method gives excellent results. The posterior method is used for less extensive growths and in cases in which the clinical diagnosis between cancer and ulcer is questionable. J. J. Junotomies is especially useful in cases of extensive involvement when doubt as to the diagnosis exists. It is also useful in cases of accidental perforation of the ulcer. The gastric tumor should be removed even though all of the glands cannot be extirpated. It gives longer and more comfortable existence to the patient.

Clement Occlusion of the Stomach (Occlusion supracardiac duodeni bilioenterici). *Mer. scott. med.* 913 iv 243. By Journal de Chirurgie.

The woman, 3 years old entered the hospital with cyanosis, breathing irregularly and vomiting greenish bile-stained liquid continuously. This condition had lasted fifteen days and began very suddenly. On examination the abdomen was found to be distended and tympanitic, especially in the upper part. A solid immobile mass was palpated in the left hypochondrium which did not correspond to any organ.

On opening the abdomen enormously distended stomach came into view. It was so distended that the wall was transparent. Examination disclosed bilocula stomach, the opening between the two parts being so narrow that fluid could not pass. A gastro-enterostomy was performed and an adhesion to the diaphragm freed. The patient died six hours later. At autopsy there were no signs of ulcer, cure or healed, or of new growth about the stomach.

The absence of scars made it seem that the constriction must have been either a congenital affair or due to very early ligation of some caecum. On account of the condition of the patient it was impossible to get history of any previous attacks. The author believes that the trouble of fifteen days duration must have been due to spasm from long standing hyperchlorhydria or from a lesion on the innervation of the stomach. Such cases are very rare and the diagnosis from intestinal obstruction high probability. J. Debove.

Balfour Anterior Gastro-Enterostomy. *Ann. Surg. Phila.* 93 lv 903. By Surg. Gynec. & Obst.

It is generally conceded that when gastro-enterostomy is indicated the posterior no-loop operation is safer, gives the best end-results, and that it carries practically no risk of unfortunate mechanical sequelae. The method has been so consistently satisfactory that it may have been used a times when other methods could have sufficed as well or

perhaps better. It is particularly applicable for benign lesions in the region of the pylorus when a resection of the pyloric end of the stomach is not indicated or a plastic operation is not possible.

For various reasons an anterior gastro-enterostomy is the operation of choice in certain definite groups of cases, the largest of which is composed of the obstructions of the pylorus due to carcinoma in which resection of the growth is not feasible. In many of these cases the mechanical obstruction with its retention of decomposed food products and the starvation is the important factor. Not only rethese patients is greatly relieved temporarily by drainage of the stomach but the terminal stages of the malignancy are much less pitiable. It is particularly in this type of case that the anterior method is preferable on account of the speed, safety, and simplicity with which it can be performed. A smaller group is composed of certain benign lesions at or near the pylorus where posterior gastro-enterostomy could be desirable but not possible because of the presence of some mechanical condition. Extensive adhesions, congenital or inflammatory malformations, etc., may be sufficient to preclude the advisability of attempting the posterior method and yet permit the anterior operation to be done safely and quickly.

Gossliodd Simultaneous Resection of the Stomach and Transverse Colon. Five Cases (Résection simultanée de l'estomac et du colon transverse 5 observations.) *Lancet* 9.3.14, 475.
By Journal de Chirurgie

The narrowness of the colon at the stomach makes it possible for new growths of one segment invade the other and so make resection of both necessary. Leriche has collected thirty such cases, with ten deaths. The author had but one operative fatality. In his five cases he removed the tumor of the stomach and colon in one mass and then made a gastro-duodenostomy and lateral anastomosis of the colon.

In one case there was myosarcoma of the stomach invading the meso-colon so that it could not be removed without destroying the blood supply of the colon. The tumor with parts of the stomach and 3 cm. of the colon was removed and the continuity of the gastro-intestinal canal brought about as described above. The patient died of pneumonia eight days later.

In the second case cancer of the stomach was resected with some of the colon, gastro-duodenostomy and lateral anastomosis of the colon performed. The patient died eleven months later of recurrence of the pleur and supraclavicular lymph glands. In the third case 6 cm. of the stomach and 5 cm. of the transverse colon were resected for a benign gastric ulcer in a man 6 years old. The patient recovered and was in good health fifteen months later.

In the fourth case the cancer of the colon was resected and twenty months later it was necessary to resect 5 cm. of the pyloric part of the stomach

and 12 cm. of the intestine. The patient recovered and was in good health nine months later three years after the first operation. In the second case a woman 53 years old who had had painful attacks for fifteen months cancer of the colon and stomach was resected en masse and the patient was in good health six years and three months after the operation.
CH. LERICH

Almberg Lacing and Closing of the Pylorus with Omentum (Umsehnung und Verschluss des Pylorus durch Netz) *Deutsche med. Wochenschr.* 19.3.1914, 606.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In operating on his last two cases of duodenal ulcers Almberg proceeded in the following way. He first closed the pylorus with silk ligature in the furrow thus formed he pulled a piece of the omentum behind the pylorus upwards placing it around the pylorus. He fastened this omental ring with two or three sutures.

One of the patients died five days after the operation from pneumonia and at the autopsy it was found that the mental ring closed the pylorus perfectly and tightly. Almberg believes that the omentum alone will hold the pylorus closed after the silk thread ligature has been cut.
KOTZ.

Hasenel Duodenal Ulcer (Über das Ulcus duodeni) *Zentralbl. f. Chir.* 9.3.14, 92.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author discusses the symptoms and diagnosis of duodenal ulcer. He believes that operation is indicated in the early stages of the duodenal ulcer when all internal therapeutic measures fail. Operation is further indicated in hemorrhages, symptoms of tenosis, and, above all, in perforation of the ulcer which is the most dangerous complication and occurs in about fifty per cent. of all cases. The direct method of operation consists in the excision of the duodenal ulcer, invagination, and suture, but has the disadvantage that the cause of the evil, i.e., the influence of the gastric juice upon the duodenal wall, is not eliminated and new ulcers may form. According to the author the method of choice is the gastro-enterostomy retrocolica posterior with closure of the pylorus.

Hasenel has performed gastro-enterostomy nine times in twenty-six cases of duodenal ulcer during the last eight years (in five cases with closure of the pylorus). There he excised the ulcer and in one case added gastro-enterostomy retrocolica posterior. In five cases of perforation the ulcer was sutured four times. Two patients with perforated ulcer died.

HALL.

Berard and Alamartine Accidents and Technical Details of Jejunostomy (Accidents et technique de la jéjunostomie) *Rev. de chir.* 9.3.14, 660.

By Journal de Chirurgie.

The authors report the case of a man 50 years old suffering from diffuse cancer of the stomach with

reflex oesophageal dysphagia. A jejunostomy was performed according to the technique of Witzel-Elschberg. As the patient was normal for the first three days and the oesophageal spasm had ceased he was allowed fluids by mouth. On the fourth day the abdomen became tense and there were colicky pains but no vomiting; the patient became rapidly ill and died that evening. At autopsy a sharp kink as found the jejunum and the jejunum and duodenum proximal to the jejunostomy were dilated. Liquids passed readily as soon as the mouth of the jejunostomy was freed.

T A old recurrence of this accident jejunostomy in oesophagus (Albert and Mayo-Robson) is now practiced. They searched the literature to find the technique of jejunostomy which most closely fitted the following requirements: it must be simple and rapid; the patient is usually cachectic; the opening must be continuous and readily closed; finally there must be no danger of obstructing the intestine.

The method of Albert and Mayo-Robson with lateral or button anastomosis of Jaboulay-Lumiere appeared to be the best.

The authors advise local anesthesia preceded by the injection of scopolamine and morphine. A median or lateral oblique subumbilical incision is made and anastomosis without sutures using the Jaboulay-Lumiere button is performed. A lateral jejunostomy is then made in the middle of the loop according to Touta. J. OMEGA.

Viglier. I Volvulus of the Cecum, Ascending Colon and Initial Portion of the Transverse Colon; Death from Intestinal Hemorrhage.
2. Volvulus of the Pili Colon Treated by Simple Untwisting; Recurrence. Resection of the Affected Loop; Cure (Volvulus of cecum et colon, véculeux y compris l'angle hépatique et de origine du colon transverse mort par hémorragie. Volvulus de colon pelvien traité par la dérotation simple réussit. Mort après résection de l'angle oblique gauche). *Bull. et mem. Soc. de chir. de Paris*, 3, 1904, vol. 95.

By Journal de Chirurgie

Viguer's first case was that of a soldier 5 years old, who was suddenly seized with violent pain, boy and to the right of the navel, accompanied by vomiting. Next morning the vomitus was brownish; the paroxysmal pain remained in the same position; the abdomen was distended; the pulse was small and thread-like. Neither gases nor stool had been passed during the night. Immediate laparotomy 7 hours after the onset of the symptoms showed a volvulus of the cecum and whole ascending colon, which dragged with them the terminal portion of the small intestine and the hepatic flexure in initial portion of the transverse colon. The torsion was complete (360°) and clockwise. Untwisting and restoring the gut to its normal position led to partial emptying of the incarcerated gas and fecal matter but the patient died on the operating table.

At autopsy the mucosa from the duodeno-jejunal angle downward was studded with minute

hemorrhagic spots which became larger and more marked as one came nearer the large intestine, so that in the terminal portion of the ileum the mucosa

was intensely congested, dark purple with black patches. These lesions stopped abruptly at the site of the torsion where the mucosa resumed its normal appearance. The cause of death was intestinal hemorrhage, the twisting of the mesenteric vessels having resulted in a huge hemorrhagic infarct in almost the whole of the gut.

In the second case that of a woman 4 years old, the first attack of volvulus of the pelvic colon was treated by laparotomy, puncture of the gut with a trocar to destroy the enormous distention and untwisting. The torsion was at least twice 360° and reversely clockwise. Recovery was unsuccessful, but 20 months later there was a recurrence, less severe than the first attack. The torsion was only 180° and in the same direction as formerly. Reaction then ended to end suture brought about cure.

The author's own opinion is concurred in by Lajoy, who thinks that resection, preferably in the interval, or at the time of the operation for obstruction, if the general condition of the patient permits is the only radical treatment; untwisting leads to recurrence and anchoring of the loop yields only poor results.

HARTMAN quotes a case with multiple recurrences, finally cured by resection.

DILLON has operated on 6 cases of volvulus of the large intestine in a child 7 years old. Untwisting was immediately followed by an extremely copious evacuation, but death occurred in a few hours. The second, in a man 50 years old, was treated by untwisting and anchorage. The man recovered but could not be followed.

ROBERTSON once reduced a volvulus very easily but the gut was already markedly altered at the point of torsion and leakage caused death. Resection could have been the correct procedure in this case.

SOULROUX has recently treated a volvulus by simple untwisting; the general condition was such that nothing more could have been possible.

TUFFIER has seen a case where, after multiple recurrences yielding to non-operative treatment, an artificial anus had to be made during a more severe attack. The patient died in a few hours.

SAVARIACQ has seen six cases of cat o' nine tails of the small intestine all ending fatally. He noted also a case of chronic volvulus of the large bowel in which simple untwisting brought about recovery but since the first attack, recurrences have since necessitated surgical interference. J. DAVENPORT.

Kellogg. Incompetency of the Ileocecal Valve; Disorders Arising from this Condition and Their Treatment. *Med. Rec.*, 6, 1904, p. 117.

By Surg. Gynec. & Obst.

The study of the ileocecal valve and its disorders has been greatly neglected. The author studied sixty cases, and the most common symptoms are constipation, marked gastric pain, obstinate indi-

gestion flatulence etc. A large percentage showed evidence of pyeliditis, colitis mental and nervous depression.

The treatment is divided into the palliative and the operative. The former consists in securing at least three bowel movements daily and in hanging the intestinal flora by administering cultures of several varieties of bacteria (*B. bulgaricus*, *B. indus* and *B. glucobacter*). The increased bowel activity is obtained by bulky laxative diet with the addition of agar agar and paraffin oil if necessary gymnastics, outdoor life coal bathing etc. all assist. The results have been most satisfactory and the operative procedure has been resorted to only when it is necessary to enter the abdomen for some other pathological condition.

The operation consists in restoring normal the partial intussusception of the small bowel into the caecum. This is easily done by pushing the small intestine into the caecum by short distance and fixing it by a couple of catgut sutures passed through the outer coats of the gut and it is often best to narrow the aperture between the lips of the incision by constricting the outer layers of the gut with suture. The competency of the valve is then tested.

J. H. KILG

Obst. Primary Typhilitis (Primäre Typhilitis) *Revue Chim.* 1900, 20
By Zentralblatt für ges. Chir. Göteborg

The caecum used to be looked upon as the seat of origin for all inflammatory processes occurring in the ileo-caecal region. At present there is a difference of opinion as to whether such condition primary typhilitis occurs at all. The author reports a case from the surgical clinic of the University of Budapest which is an undoubted example of typhilitis without pyeliditis. The patient was a young man with abscesses in the ileo-caecal region. Operation revealed a large perforated ulcer on the anterior surface of the caecum through the appendix perfectly normal. These observations are confirmed by microscopical examinations of sections of the ulcerated area as well as of the appendix. The possibility of specific disease, as typhoid or tuberculosis, were carefully excluded.

With this case and the observations of other authors the report has the author concludes that primary typhilitis certainly does occur. It hardly be differentiated, however, from the much more frequently occurring pyeliditis. The infection arises from the faecal contents of the bowel. Congenital and acquired changes of the caecum as to certain degree predisposing factors. DEVLIN.

Sonnenburg, Pathology and Therapy of Perityphilitis (Pathologie und Therapie der Perityphilitis) Leipzig Vogel 93
By Zentralblatt für ges. Chir. u. G. Göteborg

Sonnenburg's new book is thoroughly revised and all extraneous matter excluded. I regard it as the entire treatment is concise and

thorough. Sonnenburg's personal note on the value of the blood picture with all its consequences is clear and concise. In this connection he states:

We possess to-day sufficient diagnostic aids to make diagnosis and render a prognosis and to differentiate the cases (especially in the early stage) to differentiate the mild from the severe cases. The proper interpretation of the blood picture is often the deciding factor for action, as it shows us the virulence of the infection and the involvement of the peritoneum in the individual case. If another place be continued. As long as in an acute attack of appendicitis the peritoneum is not involved and the inflammatory condition, usually catarrhal in nature is confined to the lumen of the appendix, so probably associated with an enteritis or colitis, so long as there is no reason to treat this condition differently from the way in which the same condition in other parts of the intestinal tract would be treated with laxatives. VASTA.

Lardennola and Okinczyk. The Sigmoidostomy (La sténo-sigmoïdostomie en Y) *J. de chir.* 93, 39. By Surg. G. nec. & Obst.

The authors present the following procedure as a more logical technically simpler and a more efficacious method of short circuiting the large intestine for granular obstruction or biliary

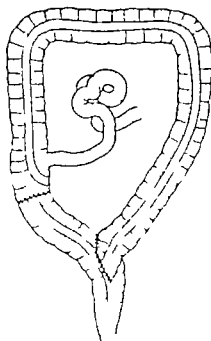


Fig. Showing result to be added. The Y is inserted due to the excessive length of the sigmoid segment. The section of the colon has been made too low and the two anastomoses are too close together.



Fig. 2. Approximation of the sigmoid to the cecum. The antrum has not yet been resected. The end of the sigmoid has been freed (indicated by string) and is now below the occluding clamp.

colitis. After various experiments in the sigmoid, outcomes the authors finally arrived at the following perfected operation.

The patient is placed in the Trendelenburg position and a long median incision is made from the umbilicus to the umbilicus. The colon is rapidly explored for the clinical lesions and the termination of the small intestine is ascertained for the only possible contraindications to the operation, namely stenosing band near the ileum.

4th Step. Like a mild sigmoid flexure is brought all past the cecum. This is easily accomplished because for both the operation and resection usually accompanied by mobile cecum and ileum. This avoids the approximation of the mesocolon and the lower part of the button-hole formed. The mesenteries (they are on parietal peritoneum) of the peritoneal mesocolon. This is done following Lane's technique. Beginning at the right surface of the mesocolon, sutures are run from the sigmoid to the peritoneal parietal peritoneum. The mesocolon is pulled back to the left surface of the mesenteries, lower terminal ileum. Care is required to avoid blood vessels. The ends of the suture are held with a clamp and are not cut until the anastomosis is completed.

5th Step. Appendixectomy is performed quickly as the appendix interferes with the anastomosis.

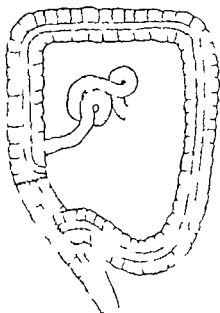


Fig. 3. Showing the correct result. Approximation of the sigmoid to the cecum. The rectum is not yet resected. The end of the sigmoid has been freed (indicated by string) and is now below the occluding clamp.

4th Step. An intestinal clamp is placed above the bottom of the cecum to mark the limit of the cecum which is to be resected.

5th Step. After milking away the contents, two intestinal clamps are placed on the sigmoid. It should be cut high enough toward the cecum to make the right sigmoid branch a little longer than the left colon sigmoid branch. Order is less important than between the two anastomoses. If the colon loop is too long, the λ will be inverted, which might lead to various trouble (Fig. 4). The clamp should include most of the depth of the mesocolon and the extremities should be in position.

6th Step. The iliac sigmoid is now cut between the clamps, the cut surfaces being cauterized. The mesocolon is cut to the end of the long clamp and immediately sewed over to control hemorrhage. The upper extremity of the cut colon is trapped in saline gauze and laid aside.

7th Step. The inferior end of the sigmoid is placed in position; the rectum and the posterior part of mesocolon sutures are passed (Fig. 5).

8th Step. The anastomosis between the cecum and sigmoid is completed both sigmoid and cecum being at across just proximal to the sealing clamps before the sutures are passed.

9th Step. The compresses are removed from the superior end of the cut sigmoid. After choosing a point far enough from the cecal anastomosis and the rectum high enough so that the work can

be done outside the abdomen, the sigmoid-sigmoidostomy is done in the usual manner. This presents no particular difficulty as patient for whom this operation is indicated usually has a long sigmoid. 2nd Step. The suture as placed in step 1 is now tied just tight enough to close the opening in the mesentery and the operation is terminated by replacing the intestines and closing the abdomen. The result obtained is represented schematically by Fig. 3.

LUNN

Hesse: The Origin of Inflammations of the Appendix on the Basis of Bacteriological and Experimental Evidence (Über die Entstehung der Entzündungen am Blinddarmumhang als Bakteriophagie und Sporenentzündung). *Monatsh. f. Chirurg. u. Gynäk. d. Wied. Chir.* 1913. 42: 145.
By Zentralbl. f. d. ges. Chir. (rough)

The course of inflammation of the appendix varies in its processes bacterial and mechanical. It is usually present. The important question is which process induced the inflammation in the appendix. The presence of bacteria even in the earliest stages does not clear up the etiology. It is either true though the bacteria must be considered as the causal factors of the inflammation mechanical factors nevertheless contribute.

From animal experiments the author concludes that the advanced stage of inflammation of the appendix is secondary peritonitis caused by the rupture of the subperitoneal folds formed by the retention of the contents of the appendix. The toxins rise on the one hand from the contents of bacteria which themselves are not pathogenic and on the other hand by hanging the media which they grow. The destructive inflammation of the appendix therefore is not an infectious disease. This is further proven by the fact that bacteria are never found in the circulating blood and secondary metastatic bacteremia never developed. All prophylactic measures must be based on the fact that the inflammation is due to toxins. It is of importance not only to prevent the retention of substances but also to find out what has been retained. Incompletely split albumin is very dangerous. It may enter the appendix and change from diarrhoea to constipation.

Rosenoff: Anatomical Consideration of Ligamentous Formations About the Proximal End of the Large Intestine. *Ligamentum Variforme* (Nach einer Abhandlung in der Gegend des proximalen Abschnittes des Dickdarms als anatomisches Gebilde. *Ligamentum variforme*). *Chirurg.* 1914. 9: 333-340.

By Zentralbl. f. d. ges. Chir. (rough)

This article represents an extensive anatomical study — an original investigation on many cadavers. It was the author's purpose to study the normal conditions of these membranous formations and therefore only those cadavers were selected which presented about the normal abdominal findings. Ninety-three bodies were studied. Five distinct

types are described according to the manner in which the peritoneal membranes are disposed.

When they are extensive they envelop the gall bladder and cover the ascending colon as far as the cecum. In these cases the membrane appears much like a continuation of the small omentum. The ligament covers the ascending colon, the cecum and possibly the appendix. 3. These are cases in which the peritoneal folds affect only the cecal region the appendix being frequently attached to the cecal wall.

4. Rare instances in which the ligamentous folds begin in the right abdominal wall, extend across the cecum and ascending colon and blend with the great omentum. These formations are described also as ligamenta caeco-parietale and ligamenta mesenterico-parietale. 5. To the last group belong those cases in which the floor of the cecum is fixed in an unusual position. Many of the above classified peritoneal folds have been previously described under various names, for example ligamentum mesocolicum-ticum-pylorocolicum (Howell) and Luschka's more recently by Jensen in 3 per cent. Vogel and Senger in 3.7 per cent.

All individuals presenting any of these conditions certain other peculiarities can be detected in the abdomen. The description of these constitutes another chapter of the article. The great omentum shows an abnormally large development. The descending colon is often under-developed. The sigmoid is usually fixed in the left iliac fossa. The mesentery of the small intestine is unusually small at its attachment. The course of the mesenteric vessels also is peculiar. The results of these investigations are tabulated and illustrated by thirty diagrams. The peculiarities in the development of the bowel are also discussed.

After quoting the literature extensively and going into the subject in detail the author concludes that there is close connection between the embryonic development of the gut and the later development of the peritoneal folds or membranes. His opinion is supported by personal observations on fourteen embryos between the ages of one and five months. The most cases of varying peritoneal folds are discussed in detail and illustrated. In conclusion the author points out that membranous developments about the proximal end of the large gut are not looked upon as the result of inflammatory processes, as surgeons frequently assert but that they have their deal with anatomical structures which have developmental history of their own. Since these structures possess an embryological development of their own and can therefore vary widely the author has proposed the name ligamentum variforme.

SCHWABACH

Goldthwait: Orthopedic Principles in the Treatment of Abdominal Visceroperforations and Chronic Intestinal Stenosis. *Surg., Gynec. & Obst.* 1913. 17: 387.
By Surg., Gynec. & Obst.

The work of the orthopedist in these cases consists in the modelling of the body so that the common

3. Characteristic appearances of the gas cysts and cyst walls, in which an endothelial lining and giant cells are a feature.

4. Occurrence of spaces or channels, some of which may be lymphatics partly lined by endothelium and partly filled with giant cells endothelioid cells and leucocytes.

5. Evidence of dilatation of lymphatics and of the inter-communication of large lymphatic spaces, possibly cyst spaces, with undoubted lymph channels.

6. Absence of communication between cysts.

7. Inflammatory and productive processes between the cysts and under the peritoneum resulting in the formation of connective tissue and fibrous masses, leading to the obliteration of certain cysts and therefore to a kind of healing process.

8. Absence of bacteria in most of the cysts.

9. The deposition of highly refractive needles in the interior of many cysts causing peculiar flattening of the cells of the lining membrane and the possible rôle of such crystalline matter in the production of some of the giant cells.

Thus Turner concludes from the reported cases and from a study of his own that the condition is self-limited with a tendency to spontaneous cure.

HAIRY B. MITCHELL

Brown. The Value of Complete Physiological Rest of the Large Bowel in the Treatment of Certain Ulcerative and Obstructive Lesions of This Organ, with Description of Operative Technique and Report of Cases. *Surg., Gynec. & Obst.*, 9, 3, xvi, 6. By Surg. Gynec. & Obst.

Brown points out in his paper the disadvantages of complete physiological rest of the entire large bowel in the treatment of certain diseases of this organ which have heretofore been treated by various surgical methods. He describes a technique by which this rest can be accomplished, and how when its purpose is fulfilled, the bowel can be put back into commission in manner both safe and satisfactory. The type of cases in which the author has found this surgical rest treatment of value are enumerated as follows: (1) Mucous colitis associated with obstructive lesions; (2) ulcerative colitis (morbidity bacillary, beriberi, etc.) and (3) obstructions to the colon, acute and chronic due to neoplasms.

In mucous colitis Brown's technique seems better to meet the indications than Lane's operation, or the Weir Mitchell treatment, etc. By total pericolic bands and adhesions can be severed, the cecum elevated from the pelvis and the intestinal stasis immediately relieved. The entire colon can be put at rest and during this process of complete physiological quiet, the patient can be given the benefits which follow dietetic, hygienic and orthopedic treatment. In this way the bowel can be given a chance to regain its normal tone.

Technique. Through right rectus incision sufficiently long for general exploratory purposes, the abdomen is opened. The cecum is then once

sought and the entire large bowel is carefully examined. All pericolic adhesions are severed, the appendix removed and the stump buried. The ileum is next severed between two clamps, close to the ileocecal valve. The distal ileum is tied off and buried as was the appendix. At a suitable part of the cecum a purse-string suture of linen is placed and the cecum is next incised. Through this incision, a large catheter is inserted after which the purse-string is tightly tied. A second purse-string of No. 2 chromic catgut is next placed. Under the loops of this purse-string, three long catgut fixation sutures are placed. A third purse-string is next made at McBurney's point and the catheter and fixation sutures are pulled through. The peritoneal surfaces of the cecum surrounding the catheter are next scarified. The catheter is now slipped through the butt and the fixation sutures threaded through the eyes and tightly tied, thus closely approximating the serous surfaces of the cecum to the parietal peritoneum. A stiff rubber drainage tube is next inserted into the proximal ileum, fixed with a double purse-string suture and brought out of the lower angle of the rectus incision. The parietal peritoneum is made to hug it snugly by few catgut sutures and the abdominal wound is closed in the usual way.

The indications for restoring the continuity of the large bowel are: (1) improvement of the patient's general condition and the return to normal, as shown after repeated chemical, microscopic and culture growth examination of irrigation fluids passed. This restoration should not be made too early, particularly in the ulcerative lesions of the colon. To put the organ back into commission, restoration is easily accomplished by simply cutting out the anus and closing the distal ileum with a purse-string suture. A lateral anastomosis of the ileum to the ascending colon may be performed or the ileum sutured into the sigmoid (Lane). The author has never found a difficulty in restoring the continuity of the intestine.

The author bases his paper upon ten cases so operated. Two were cases of chronic intestinal stasis with obstructions due to pericolic bands and flexures, both are greatly improved and now comparatively well. Three were operations for amoebic dysentery, all cases were cured. One ulcerative colitis with extensive involvement of the sigmoid and rectum patient now in good health. One case of extensive obstructive tuberculous colitis patient received great relief and lived in comfort for two months. Three were late and inoperable malignancies, one lived six months, one five months. The third is still living, nine months after operation and is comfortable and in reasonably good health.

Rosenheim. Colitis Chronica Gravis (Über Colitis chronica gravis). *Deutsche med. Wochenschr.* 9, 3, xxix, 686.

By Zentralbl. f. d. ges. Chir. L. Grossenb.

The difference between colitis gravis and simplex is only one of degree. In all cases definite inflammation.

matory condition of the mucous membrane exists, followed usually by erosions and tumor-like formation. Fistulae and abscesses may develop as secondary complications. Soreness, colic, endocarditis, multiple necrosis, etc. are due to a general infection. A specific symptom complex does not exist. The prognosis is always doubtful. Rosenheim observed three deaths (peritonitis, sepsis and general cachexia) in his series of fifteen cases.

Rest, bed, bland diet, opium, tannin, oil, albumen, etc. frequently accomplish much therapeutically. A local treatment of the colon is impossible in many cases on account of the sensitivity. The insufflation treatment is of no value. Irrigations with boric acid and tannic acid are of value in mild cases only. Enemas of starch, gelatin and gum arabic appear to be of more value. Surgical treatment should then be considered only when internal therapy has proved futile but under certain conditions it may be of saving procedure. Special indications for surgical intervention are prolonged fever, protracted constipation, marked discharge of pus in the feces and local or general complications. W. A. ROSEY.

Graham Report of Case of Focal Tumor Associated with Hirschsprung's Disease.
Am. Præcl. Soc. 9, 3, June.

B. Surg. Gynec. & Obst.

Graham reports a case of focal tumor with Hirschsprung's disease which, as that of young Frenchman, aged twenty-seven, who had undergone three abdominal operations. Present illness dates from birth. Not unusual to go a week or ten days without stool and then evacuation as produced only by means of enemata.

At the age of 9 she was operated upon and large fecal tumor was removed from the sigmoid. At the age of 5, she suffered another attack of complete intestinal obstruction. She was operated upon again and this time large fecal tumor was removed.

In August 9, for the third time, she presented symptoms of complete intestinal obstruction for seven days. Abdomen enlarged and general tympanitis except the lower right quadrant, where there was dullness corresponding to large tumor which could be readily palpated. The tumor (fecal mass) was exceedingly hard and did not put pressure. It could be easily moved in every direction through the abdomen. Attacks of violent colicky pains were frequent. Vomiting was persistent, pulse 20, temperature 101°F. He requested that the fecal tumor be removed but refused to give her consent to a short-circuiting or resection of the bowel.

At operation the tumor was found in sigmoid. Its greatest circumference was 9½ inches, its weight was 64 ounces. The dilatation which was confined to the sigmoid was very marked, the greatest circumference being 20 inches. Patient made an uneventful recovery and was discharged from the

hospital on the tenth day. She gained in weight, and appeared to be in the best of health. She experienced no difficulty in procuring daily evacuations with the aid of small doses of cascara. On December 15, 9, she was doing nicely. Information was received later that she was operated upon April 19, 9, and died three days after.

Von Beck. Last Condition after Excision of the Colon by Means of Mesogastrostomy (Spit sökande och Dickdarmverschlingung durch Enterostomion zwischen Ileum und Flexura sigmoidea Mesogastrostomie). *Ber. u. Min. Chir. 9, 3, 1896, 335.* By Zentralbl. f. d. ges. Chir. 1, Göttingen.

Von Beck reports his results in fifty-four cases of colon exclusion by means of Mesogastrostomy performed for chronic ulcerous colitis (26) chronic perioditis and displacement (6) ext. valve tuberculosis of the bowel () and for inoperable colon carcinoma (). Three cases died during the first four weeks after the operation (peritonitis, pneumonia, thrombosis). In the remaining forty-nine cases good functional anastomosis resulted, no bad effects followed the short circuiting. The length of life of the canceromatous patient after operation was four to eleven months. Excellent end results were obtained in the tuberculous cases, even in extensive involvement of the lower ileum, caecum and colon.

These cases were operated in two stages. In the first the diseased area was extirpated, the ascending colon tied off and the ileum as anchored anteriorly to the abdominal wall. After four to six weeks the ileum was sutured to the sigmoid and the tuberculous ascending and transverse colon were then excluded. Result: One death, three years after operation, from tuberculous infection of the bowel, the colon, however, being normal. Two deaths six and eight years respectively after operation of pulmonary phthisis, colon entirely normal. Of the remaining seven cases six are still able to perform their daily duties (four to ten years after operation). Of the thirty-one cases operated for colitis, pericolicitis and displacement in cases returned in from one to five years complaining of gradually increasing obstruction, relative obstruction or retrograde peristalsis. All were cured. In three of the cases an appendicostomy had been performed and irrigation treatment employed ineffectively. In three cases secondary operation as necessary on account of retrograde peristalsis, sacculus dilatation of the rectum, local accumulation in the middle of the transverse colon and syphilis in the ileum and jejunum. In these cases the author recommends the exclusion of the colon by means of Mesogastrostomy with invagination of the distal end of the ileum into the caecum. In cases of syphilis and retrograde peristalsis—pericolicitis to the female sex—he advises making an end ileostomy and anastomosis between the ileum and sigmoid and anchoring the upper end of the sigmoid outside as a mucous fistula or extirpating the colon at later date. Buzza.

Libensky: The Initial Stages of Atypical Neoformations in the Rectum and the Sigmoid Flexure (Die ersten Anfänge der atypischen Neubildung im Rectum und im S. sigmoideum). *Zschr. f. klin. Med.* 93, 1918, 355.
By Zentralbl. f. d. ges. Chir. Göttingen.

The author has observed two cases of ecurrent adenoma of the sigmoid flexure and their metaplasias into atypical new growths. He reports a number of similar cases from literature and emphasizes the importance of rectoscopy on account of the uncertainty of the symptoms. Eight autopsies are reported from the author's own observations and he points out that the condition of the pedicle of the adenomatous polyps is of special prognostic importance. Only polyps with thin pedicles may be considered benign. Broad pedunculated polyps necessitate the extirpation of the entire base of insertion to prevent recurrence. **HELLER.**

Baermann and Heinemann: Treatment of Amoebic Dysentery with Emetin (Die Behandlung der Amoebien Dysenterie mit Emetin). *München. med. Wochenschr.* 93, 1918, 3.
By Zentralbl. f. d. ges. Chir. Göttingen.

The authors experimenting with emetin from different manufacturers furnishing samples of varying strength found that the drug was very effective for amoebae. When injected subcutaneously or better still, intravenously, most of the organisms—and in especially of voracious cases all of them—in the intestinal wall and in the ulcerated areas were killed. After 10-17 days few organisms may again be found. There are however strains of amoebae which evidently withstand the effect of emetin. Cysts do not seem to be directly affected by it though its early use will possibly intercept their formation. With the use of emetin even in the severest cases prompt healing takes place in the ulcerated areas of the bowel.

The maximum intravenous dose is 50 mg per 60 kg. body weight. The best results were obtained by the following method: intravenous injections with 0.005 cc. physiological NaCl solution, or the subcutaneous injection of 50-100 mg followed after 8-10 days and at intervals of 2-3 days, according to the condition of the stools, by 4-5 subcutaneous injections of 50-100 mg. Where necessary a similar course of treatment may be repeatedly given at intervals of 3-4 weeks. **VATKE.**

Proust: Rectal Prolapse Treated by Coloproxy and Perianal Wiring; on the Coordination of Rectal and Genital Prolapse; on Hysterocoloproxy (Prolapsus de rectum traité par la coloproxy et le cerclage de l'anus de l'association des prolapsus rectal et génital de l'hystéro-coloproxy). *Bull. et mem. Soc. de chir. de Paris* 93, 1918, 657.
By Journal de Chirurgie.

Proust's patient, a woman 48 years old, whose prolapse dated back 8 years, had previously had a supra-vaginal hysterectomy. Laparotomy showed very deep Douglas pouch which was bilaterated. The

sigmoid loop was anchored, above the uterine stump to the remnants of the round ligaments and to the peritoneal covering of the bladder. Two months later a perianal wiring was made to correct a tendency to eversion of the anal mucosa. A year after the operation, there is slight abdominal protrusion; the prolapse remains cured; the silver wire is still unbroken.

Quénou, commenting on this report, points out that the initial hysterectomy may have on the development of rectal prolapse. The uterus and rectum have common means of suspension; therefore, any cause bringing about the fall of one endangers the fixity of the other. Hysterectomy deprives the rectum of the anterior support afforded it normally by the uterus. The weakening of the pelvic floor favors the prolapse of both organs. Hence the not infrequent association of rectal and genital prolapse and the wisdom of anchoring both the rectum and uterus when coloproxy is resorted to. In a case of large prolapse, Quénou first sutured the vaginal vault to the rectum; next he stitched the upper edges of the broad ligaments to the posterior peritoneum on each side of the gut and finally laid the sigmoid loop crosswise and anchored up to the left iliac fossa. Here a small slit was made in the posterior peritoneum. The tendon of the lesser psoas muscle was bared and the bowel stitched to it. The uterus, from the cervix to the fundus, was also sutured to the anterior abdominal wall. In younger women this total hysterectomy would be replaced by shortening of the round ligaments.

Léonormant states that the association of rectal and genital prolapse though not uncommon, is far from constant. To the giving way of the pelvic floor which undoubtedly is a potent predisposing cause must, however, be added an abnormal length and mobility of the pelvic colon. This explains why while genital prolapse is so common in women, rectal prolapse is almost as rare in females as in males, and also why in large rectal prolapse, coloproxy is a necessary adjunct to perineorrhaphy.

Léonormant always uses the Quénou Duval technique for coloproxy oftentimes supplementing it with Thiersch perianal wiring. The latter operation alone is an excellent palliative procedure in cases in which major operation is contra-indicated; it is sometimes sufficient in children. Léonormant has performed coloproxy 9 times for large prolapses. Out of 5 cases that could be followed, he had rapid recurrences, 3 are cured after 4½, 7 and 8 years.

MACLAUREN has performed three colopexies after hysterectomy or colpoperineorrhaphy. He had one operative death; one case could not be followed; the third is perfectly well 18 months after the operation.

J. DUNSTON.

MacLaren: Rectal Section for Pelvic Abscess in Men. *J.-Lauch.* 93, 1918, 54.

By Surg. Gynec. & Obst.

The author opens the paper with a report of a case. A boy 1 year old, was brought to the

hospital three days after the onset of appendicitis. The appendix had ruptured. He was immediately operated and much pus was found in the abdomen. Two drains were inserted, one to the bottom of the pelvis and the other to the base of the appendix. He did not improve very much following the operation. On the tenth day following the abdominal section he was very sick having proctod, drawn face and rigid much distended abdomen. His operative wound was discharging considerable pus. He complained of great deal of pain. His anus was widely open, the anterior wall bulging and the peritoneal cul-de-sac was distended to its utmost by a collection of pus which filled the pelvis. The sac was opened with a sharp pointed scissors making them as dilator. At least a quart of serous pus came away first followed by thick, foul colon pus. A winged rubber tube was inserted. His improvement was very rapid.

I the hand of the author rectal section for the drainage of pus the pelvis has proven a life-saving measure. The results are immediate and brilliant. As the operation is so simple it is hard to understand why there is so much prejudice by so many surgeons against doing it. A second abdominal operation in these cases is so frequently followed by death that the author no hesitates to perform it and does rectal section instead. Since the institution of the method his mortality rate has been considerably reduced. This method of treatment is especially adaptable to those cases of appendicitis with abscess formation which occur in young children. It may be used as preliminary operation in those cases which reach the surgeon exhausted and very septic and with large abscesses in the pelvis. After opening the rectum the patient does not immediately improve the abdomen should be opened.

Edw. L. COHEN.

Delort. A topia with Flaps of the Anal Fistula (*De l'astoplasie gradueuse dans la fistule anale*). *Bull. et mem. Soc. de chir. de Par.*, 93, 1918, 2nd, 280. By *Journal de Chirurgie*.

In extra-sphincteric anal fistula, non-tuberculous, incision or even extirpation of the fistula is insufficient because the perirectal fat has disappeared and the cavity does not fill up. On the other hand, any method dividing the sphincter would result almost with certainty in fecal incontinence.

In such case the writer dissected and extirpated the fistulous tract. The bottom of the wound was bounded by the left side of the rectum. Six months later the cavity was still 3 1/2 inches deep and wide enough to admit pencil. Then cutaneous flap was cut from the left thigh, the subcutaneous fat being carefully preserved the pedicle as rotated so as to bring the flap in the wound created by the freshened edges of the cavity. The skin was sutured to the skin, while the fat cut it fill the perirectal gap. The result was all that could be desired.

J. DUBOIS.

Barnes. A Method of Operation on Fistula without Cutting Muscular Tissue. *T. Am. Pract. Sec.*, 93, June. By *Surg. Gynec. & Obst.*

This method is used in those cases of fistula which involve the sphincter muscles. An incision is made external to the sphincter similar to that made when incising an ischio-rectal abscess. Through this opening the scar tissue is dissected out to the internal opening. An incision is then made at the skin margin, so that the middle of this incision passes through an imaginary longitudinal line drawn from the internal opening. A subcutaneous dissection is then channelled out up to the internal opening. Good drainage is kept in this until the external wound is healed sufficiently. Then the subcutaneous tract which remains, is incised under local anesthesia. No muscular tissue having been cut the function of the sphincter is preserved intact.

Zabel. A Further Consideration of Sir Charles Ball's Operation for Intestinal Hemorrhoids. *T. Am. Pract. Sec.*, 93, June. By *Surg. Gynec. & Obst.*

In every instance in which the essentials of Ball's technique have been followed out carefully the author's results have been exceedingly satisfactory.

After trial of this operation, the author sums up his conclusions as to its value as follows: That as modification of the old ligature operation it is better than the latter and at the same time is far superior to the lamp and cautery operation, in that it takes care and avoids the recurrence of that revolting anal skin tag which generally becomes markedly odematous immediately after these operations, leaving behind skin tags after the swelling subsides.

Murray. Further Observation on Pruritus Ani; Its Probable Etiologic Factor; Results of Treatment. *T. Am. Pract. Sec.*, 93, June. By *Surg., Gynec. & Obst.*

Murray finds no reason for materially modifying his former reports, but has gathered data which has helped to prove the correctness of his previous work. If found streptococcal infection in three cases of pruritus ani and vulva and four cases in which the anus and the scrotum were involved. These complicated cases, with the exception of the vulva cases, improved by the use of the vaccine treatment.

In the past year Murray has increased his former series of thirty-two cases, by twenty-five in five of which streptococcal infection was not found. These cases showed other infections, which still further proves the contagious nature of pruritus ani and demonstrates also that other bacteria than streptococci may bear causal relationship, as was hinted in the author's first paper on this subject. His cases, so far as he has been able to determine have not been affected by diet. Since he discovered the infection in pruritus ani he has never changed the diet of any patient, neither has he restricted them in the smoking or drinking habits. The improvement

under the vaccine treatment, without regard to eating, drinking, or smoking, gives him additional proof for the bacterial theory.

During the past year Murray has carefully investigated the itching to discover whether it extends into the anal canal beyond Hilton's white line. He found that only in one instance did it extend beyond that point, and then only for short distance. His investigations have given him additional proof that pruritus ani is not caused by any local lesion within the anal canal, and that when such lesions exist with pruritus ani they are coincidental. In the cases operated for local lesions, the pruritus ani has not been permanently improved as a result of the operative procedure.

Murray states that rectal and general surgeons have observed many cases of fistula with discharges upon the anal skin, not accompanied by pruritus ani. The same is true of hemorrhoids, constipation, and other rectal lesions, pruritus ani occurring in only small proportion of such cases. Murray, therefore, still holds that where pruritus ani exists in connection with other lesions it is coincident. In his report he gave a summary of one hundred consecutive rectal cases wherein this fact was established fairly well.

The author refers to the opsonic index, or more properly the coefficient of extinction of opsonins, and claims that much valuable information is gained by this test. His work shows that if a complicating infection exists and other bacteria than streptococci are found to be the sole invading organisms, we must use the corresponding autogenous vaccine. The opsonic index, following bacterial diagnosis, is the proper method for determining this.

The results of treatment and the history of patients prove to him that if pruritus ani exists with local lesions, in which demand operation, the prognosis depends upon whether skin infection is present or not. If the skin infection is present the local lesions may be cured by the operation, but the patient should not be led to believe that the pruritus ani also will be cured by it. Per contra, if skin infection does not exist with local lesion and itching, the prognosis may be that it is very probable that the itching will cease with the cure of the local lesion.

After personal investigation in treating, watching results, noting how cause, effect and results dovetail together, comparing these investigations with statements and theories made in textbooks, and in articles appearing from time to time in medical journals, containing no definite pathology or scientific reasons for cause and effect, Murray cannot understand how the profession will uphold such theories in preference to the bacterial theory which has been so well proven in his own cases and confirmed by other workers.

The uniformity of the bacteriological findings is strong support for the bacterial theory of the etiology of pruritus ani. The chronicity of all the cases, the uniformity of symptoms, the similarity of

the conditions of the skin, the locality, the regularity as to the time of attacks, the uniformity of itching outside of Hilton's white line, the uniformity of the blood findings as to the coefficient of extinction of opsonins, and the fact that all local applications which have given beneficial results in the past have contained a strong germicide,—all point directly to a common cause. Further confirmation is found in the uniformly good results of treatment with autogenous vaccine of the variety of bacteria against which the patient has low phagocytic power and in the lack of good results by the various haphazard methods of treatment in general vogue.

Endo medium is used to plate the cultures. The vaccine employed is of the strength of one billion to the cc., beginning with two minims, or one hundred and thirty millions.

Murray's references to fissures in previous papers having been misunderstood by some, he desires to state that he had referred only to fissure-like cracks of the skin and not to anal fissures or ulcers.

LIVER, PANCREAS, AND SPLEEN

Opokin and Schlamoff. Hemostatic Effect of Acid Tissue in Injuries of the Liver (Zur Frage der blutstillenden Wirkung der Muskeln bei Leberverletzungen). *Arch. u. d. chir. Klin. d. Prof. J. Fedoroff*. *d. milit. med. Akad., St. Petersburg*, 9, 3, 71, 9. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In the past few years the efforts at hemostasis in injuries of the liver have tended toward a new direction. An attempt is being made to stop the hemorrhage by covering the surface of the liver with living tissue by plastic operation. This class of work belongs to the unsuccessful experiments and clinical observations on transplantations of the omentum (Loewy, Bolkajski, Hesse), the more recent attempts (fascia transplantation (Kirschner, David))

and lastly the efforts of Lawrent cover the bleeding surface with muscle tissue. These experiments were performed only on rabbits, and give rise to the following queries: 1. Has the muscle tissue hemostatic properties, does it simply act as mechanical tampon? 2. To what extent can plastic work with muscles be employed? 3. Hemorrhages from parenchymatous organs? 4. How is the hemostatic influence of muscle tissue to be explained?

To answer these questions the authors performed experiments on dogs. The muscles used were the rectus, or preferably the gluteus maximus. The muscle tissue was divided into thin slices, and preserved in arm salt solution while the wound in the liver was produced. It was made as large as possible without removing much liver tissue. The areas varied in size with that of the dogs, from 4.5 to 3.5 cm. Bleeding was profuse, but was rapidly checked by the implantation of the muscular flap, and finally stopped entirely. The fixation sutures had little to do with checking the hemorrhage, but the muscular flap does act to some extent as a tampon. Twelve dogs were used for the

tests. Four died of peritonitis in from 10 to five days, two of pneumonia after one and three weeks. The rest were killed at varying intervals, three months being the longest period of observation. Microscopic examination in the early cases showed round cell infiltration—the transplanted muscle and in the later ones connective tissue change. In three cases the flap became necrotic and sloughed out. Secondary hemorrhage did not occur.

The best part of the paper is devoted to a discussion of the thrombolytic action of muscles. According to Loeb (1904) muscle extract possesses exceptionally strong blood-clotting qualities. T satyhi himself is on this point the authors experimented with extracts of the muscle lung and liver of a rabbit and of the thrombolytic action.

into. The technique followed was that of Prof. Stenroos. The results showed that lung extract possessed the strongest blood-clotting properties and that of muscle alone the second. Liver extract possesses but slight clotting power.

After further theoretical discussion the authors conclude that the transplantation of muscle tissue into wounds of the liver for hemostatic purposes deserves increased attention, especially from biological standpoint. *Scandinav.*

Norris Solitary Cyst of the Liver. *Ann. Surg.*
Philadelphia, 1904. By Song Green & O'Connell.

Norris states that true solitary cysts of the liver of non-parasitic origin are rare lesions as compared with other conditions found in and about the organ. He reported as such two had been congenitally dilated gallbladders or ducts, cystadenomas, or true cysts, but not true simple cysts. These cysts may be intra or extra hepatic, of any size up to several liters content and they occur more frequently on the under surface of the right lobe of the liver than are more common in the female and late middle life. The causation of these cysts may be summed up as follows:

1. Confinement to cystic degeneration or occlusion of biliary ducts.

2. Degenerated changes in liver tissue are usually small.

3. Cystic changes in an adenoma of the bile ducts, usually large.

4. In the case Norris reports, of not a possible cause.

Monchowitz, in 1906, said that these cysts are associated with congenital anomalies in other parts of the body especially cysts of the kidney. That this is not accurate, as has been proven by the fact that they have been found unassociated with other anomalies.

Certain definite changes take place in the cysts of long standing such as calcareous infiltration, numerous blood vessels and they are usually surrounded by a firm fibrous capsule, the inner surface is smooth often ridged and of an opaque white color. The places the wall may be so thinned as not to show this characteristic appearance. The con-

tents vary. Usually colorless fluid fills the cavity although there may be bile or blood-stained fluid. Albumin is present in some cases bile pigment, blood, hematoidin, cholesterol and tyrosin have been found. Microscopically the capsule is composed of laminated fibrous tissue which may contain bile ducts sometimes dilated. Occasionally blood pigment is found between the bundles of fibrous tissue. The fibrous tissue invades the liver tissue for short distance and is lined internally with a layer of epithelial cells, which may be columnar or polyhedral in the small cysts.

As these cysts do not give symptoms until they are of sufficient size to cause pressure they are usually diagnosed post mortem. They may be mistaken for distended gall bladder, cystic liver, echinococcal cyst, gumma or cyst of some neighboring organ.

The operative results have been satisfactory and the procedure should be as radical as is consistently safe. If operation can be done without severe hemorrhage this is the best method. If there are very firm attachments or other contra-indications to enucleation, the best is to remove the cyst, split the parietal peritoneum and drain. Simple puncture is not recommended. In the case reported, Norris evacuated a cyst the size of an orange containing 200 cc. of clear fluid, sutured the cyst wall to the parietal peritoneum and drained the cavity and closed the abdomen the usual way. Convalescence was normal and the drainage tract closed in four weeks.

Harold B. Matthews.

Khan Cholelithiasis and Cholecystitis During Childhood and Its Treatment (Cholelithiasis and Cholecystitis im Kindesalter und ihre Behandlung). *Zentralblatt f. d. Chirurgie u. Med. Chir.*
Jahrgang 31.

H. Zentralblatt f. d. Chirurgie u. Med. Chir.

The occurrence of gall stones during childhood is extremely rare. The author has collected only fifteen cases. Four of these are autopsy findings and only one clinical observation in the newborn and sucklings. There are 5 years old, 5 and 10 years and 4 between 15 and 20 years old. The stones are described as polyhedral or oval, cholesterol masses. Those in infants weighed up to 1 g. Those in older children are the size of pea and over.

It cannot be stated whether the female sex also is predisposed during childhood sex is not mentioned in most cases. The four cases over 10 years were all girls. The clinical phenomena are practically the same as in the adult. The diagnosis is the presence of icterus and enlargement of the gallbladder is difficult to account of the rarity of the disease. It is confirmed only by finding the stones in the feces as far as possible in several cases. The treatment is based on the same principles as in the adult. Pure cholecystitis without stones is still much rarer. Case report and literature are appended.

Ulfert Eckert.

Bachy Cholecystectomy in Cholelithiasis; Indications and Results (De la cholecystectomie dans la lithase vésiculaire: indications et résultats). *Thèse de doc.* Par 93. *By Journal de Chirurgie.*

The author basing his conclusions on 80 cases of Lejars Gossel and Desmarest believes cholecystectomy the only sure cure for cholelithiasis. Medical treatment is unsatisfactory as this pit is followed by more severe attacks, occlusion of the bile passages, intestinal or pyloric obstruction, peritonitis, biliary cirrhosis or cancerous degeneration.

Removal of the gall-bladder is made justifiable in the first place by the conditions of the paravascular organs acute or subacute cholecystitis with pus abscess and chronic sclerosing hydrops of the gall-bladder are all indications. A functional disturbance follows its removal. After cholecystotomies recurrences are frequent and further operation is made difficult by the adhesions formed about the gall-bladder. I cute, acute suppurative and chronic cholecystitis and in hydrops of the bladder simple cholecystectomy gives excellent results. When the gall bladder trouble is complicated by adhesions to the intestinal tract or dilatation of the bladder giving symptoms of obstruction it may be necessary to do a gastro-enterostomy as well as a cholecystectomy. When there is chronic pancreatitis, which is very hard to differentiate from gall bladder disease alone drainage of the common duct may be necessary in addition to removal of the bladder but four such cases have cleared up without drainage.

Bachy divides either anaesthesia after injection of pentonon, Spengel incision, cholecystectomy according to the Gossel and Desmarest method and also drainage by gauze from the cut end of the cystic duct. One cholecystectomy was done for acute cholecystitis 46 for chronic cholelithiasis 7 for cholecystitis with pericholecystitis one recurrence after cholecystectomy 4 for fistula 8 combined with appendectomy or gastro-enterostomy for cholecystitis with digestive troubles 6 for hydrops of the gall-bladder with stone in the cystic duct and 4 for cholecysto-pancreatitis.

The mortality was 5 per cent. One patient died after seven months of generalized carcinoma, primarily in the gall-bladder another died after two years of carcinoma of the liver. There were three passing recurrences. The four cases of pancreatitis were cured.

Pierre Moogvor

Jacob Suprapubic Fistula after Post Typhoid Suppurative Cholecystitis; Cholecystectomy; Recovery with Persistence of the Bacilli in the Stools (Fistule sup-pubienne consécutive à une cholecystite suppurative post-typhoïdique: cholecystectomie guérison, avec persistance de bacilles paratyphoïdes dans les fèces). *Bull et mem. Soc. de chir. de Par.* 93. xxix, xi, 879. *By Journal de Chirurgie.*

A soldier years old, six weeks after the onset of mild typhoid fever complained suddenly of pain in the right half of the abdomen and in the

right shoulder. A collection developed above the pubis without jaundice high fever. On incision pus was evacuated later gall-stones and bile came out. Finally fistulous opening remained in the laparotomy incision, just midway between the symphysis and navel. Small calculi occasionally, and bile containing large numbers of paratyphoid bacilli continuously escaped from it.

Cholecystectomy through a transverse incision proved very difficult owing to the exceedingly dense adhesions. The gall bladder was found much thickened and stuffed with calculi its ulcerated fundus communicated with the sinus by a long fistulous tract burrowed through masses of adhesions. The hepatic and common ducts were normal. Recovery was uneventful but the man remains a chronic bacillus carrier as his feces contain many paratyphoid bacilli.

J. Durosoir.

Stockey The Employment of the Omentum for Hemostasis in Extirpation of the Gall-Bladder (Die freie Netztransplantation zur Blutstillung bei Gallenblasen-entfernungen). *Verhandl. d. wiss. Ver. d. Ärzte d. Stadt Ötchen-Krök St. Petersburg.* 93. xxi, 45. *By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.*

During the extirpation of a gall-bladder severe hemorrhage occurred from the liver which could not be controlled by tamponsade nor by hemostats the latter tore through the liver substance. The thor decided to use omentum to cover the defect. After pressure for 15 minutes the transplanted piece of omentum remained adherent to the liver surface and the bleeding was controlled completely. Three days after operation death occurred from cardiac conditions.

Post-mortem examination showed that the omental covering had become adherent over the raw surface of the liver where the serous covering of the liver was intact no adhesions took place. There was no blood in the peritoneal cavity. On cross section it was plainly seen that the omentum had become firmly adherent to the liver substance. This observation was confirmed by microscopical sections. Only here and there were small hemorrhages found between the omentum and the liver substance. The adjoining liver substance was markedly hyperemic. The omental capillaries were congested.

The author compares this method with that of Clainmont and Negri, who transplanted peritoneal flaps. He points out that omental transplantation has several advantages. There is always plenty of material. It can be obtained easily with slight traumatism. It forms adhesions more readily than other tissues. The hemostatic effect is more marked.

Voss Schilling.

Jordan Inhibitive Action of Bile on Bacillus Coli. *J. Infect. Dis.* 93, xi, No. 2.

By Sarg, Gyanc. & Obal.

To ascertain the inhibitive action of bile upon B. coli, pure cultures were plated in parallel series

upon plain agar and bile agar. A colony count after 48 hours incubation showed marked inhibition by bile both of strains of *B. coli* freshly isolated from human faeces and of those long cultivated on agar or kept for year in water suspension. Several of the freshly isolated strains were inhibited to a somewhat greater degree than other strains kept in water suspension or cultivated on nutrient agar for many generations. These results do not support the assumption that the effects of *B. coli* inhibited by bile are those which have become attenuated by long sojourn in water and are thus negligible in determining recent contamination. To investigate further this situation 100 colonies of *B. coli* isolated from pure culture on plain agar plates and the same number from bile agar plates were tested for vigor in milk coagulation and maximum indole production. The *B. coli* grown on bile agar showed no greater physiological activity than those grown on plain agar.

Samples of water and fresh sewage were tested in 10 lactose broth and lactose bile in parallel series. In the series of 100 samples each, *B. coli* was isolated from 1 per cent of the lactose broth and from 10 per cent of the lactose bile tubes. In the second series of one hundred and fifty samples each, *B. coli* was isolated from 3 per cent of the lactose broth and from 10 per cent of the lactose bile tubes. In the series of 7 samples each properly diluted *B. coli* was isolated from 50 per cent of the lactose broth and from 1 per cent of the lactose bile tubes. It thus appears that bile inhibits from one third to one half of the viable cells of *B. coli*.

Langé. A Case of Free Transplantation of the Omentum in a Stab Wound of the Spleen. *Monatsschrift für Chirurgie und Geburtshilfe*, 1913, 11, 1, 1. *Archiv für Klinische Chirurgie*, 1913, 11, 1, 1. *Archiv für Klinische Chirurgie*, 1913, 11, 1, 1. *Archiv für Klinische Chirurgie*, 1913, 11, 1, 1.

The patient had a stab wound of the posterior axillary line at the level of the sixth rib. Severe hemorrhage and marked rigidity of the abdominal wall was present. Inspection of the abdominal cavity was performed. The wound in the diaphragm was enlarged. A wound of the spleen bleeding severely was found. The wound of the spleen was tamponaded with free end of the omentum. Hemorrhage ceased immediately. Isolation of the pleura according to Frey and tamponade completed the operation. Recovery resulted. O. von Schmieden.

Mitchelson. Modern Surgery of the Spleen. *Die Krankheiten der modernen Chirurgie*. Leipzig, 1913, 1, 1, 1. *Chir. Orthop.*, 1913, 1, 1, 1. *Chir. Orthop.*, 1913, 1, 1, 1.

Mitchelson discusses the effect of splenectomy upon the organism. Numerous cases have proven that removal of the spleen does not result in any injury to the body. A hyperactive organism following splenectomy is specific and may last for years

under certain conditions. The biologic characteristics of the blood are changed temporarily, the antitryptic and bactericidal power of the serum is decreased at first but soon returns to normal. Other phenomena following splenectomy are enlargement of the peripheral lymph glands, hyperplasia of the red bone marrow with pains in the long bones and an enlargement of the thyroid gland. These however are not constant. Several observations lead to the conclusion that under certain conditions small additional spleens may hypertrophy and take up the function of the removed organ. Injury of the spleen is a very frequent indication for surgical procedure. Diseased conditions of the spleen predispose to lacerations. During acute infectious diseases lesser or more severe necrosis, hemorrhage and vomiting may cause fatal ruptures. The same is true of malaria. Of the subcutaneous injuries the following are differentiated: contusions of the spleen, about laceration of the capsule. These demand attention only in case the capsule ruptures secondarily or if case hematoma appears or blood cyst is formed. The definite ruptures involving capsule are usually transverse tears and multiple in a great part of the cases. Laceration of the left kidney frequently accompanies the injury and may render the diagnosis extremely difficult. The clinical picture may be divided into three stages: (1) symptoms of shock; (2) stage of improvement (latency) usually of short duration but occasionally lasting for several days; (3) stage of terminal internal hemorrhage. The cessation of the primary hemorrhage or unusually during the initial shock. In severe cases the omentum entered the tear and sealed. The diagnosis of the subcutaneous injury of the spleen can as a rule be made with certain degree of probability. The operation of choice is splenectomy only. Markedly adherent large splenic tumors amenable to removal. But removal of the spleen is not advisable. Several cases may be overlooked. If not found at autopsy, and other open injuries of the spleen are usually accompanied by injury of other organs (lungs, pleura, diaphragm, stomach, bowel). Isolated injury of the normal spleen can occur only beneath the diaphragm during the moment of injury is used deep inspiration.

The diagnosis is extremely difficult and the demand that all perforating injuries of the lower left thoracic wall and exploratory thoracotomy should be performed is therefore entirely justified. In bullet wounds splenectomy is probably always indicated in at least one case, however but it can be performed in many cases. Abscess of the spleen may occur either because of suppuration of a splenic hematoma or the course of infectious diseases and is induced either by trauma or by embolic infarct. These abscesses are characterized by the tendency to sequestrum formation. The early symptoms are not characteristic and consist of fever and chills. Pain in the region of the spleen radiating to the shoulder occurs only after the abscess reaches the capsule. If the

seat of the abscess is in the upper part the diagnosis is difficult as early involvement of the left pleura takes place. If the abscess is developed in the lower pole, palpable splenic tumor soon appears. Fluctuation rarely occurs, likewise respiratory rubs, as the diaphragm is more or less fixed reflexly but if they do occur re of deciding significance. Leucocytosis although frequently present is of value only in typhoid abscess. Puncture of the spleen is not without danger and should be performed only on the operating table where operative procedures may follow immediately. The prognosis of the operation is good if performed early.

Of the cysts, blood cysts are the most common, being however not true cysts. They are always single. In no distinction to these are the multiple serous and lymph cysts. Objective signs splenic tumor with irregular nodular surface, fluctuation rare, rubs are frequently heard due to perisplenic adhesions. No diagnostic blood changes are present. The prognosis in general is favorable except in suppuration and ruptures. The best surgical procedure is resection. In very large cysts with not too firm adhesions splenectomy must be considered in very large cysts with firm adhesions, incision and drainage must suffice. Echinococcus cysts of the spleen are unilocular. They develop most commonly in the center of the organ, pushing both poles away from the center. This gives the organ a characteristic long-drawn-out shape. If booklets are present the diagnosis is clear. Exploratory puncture is advised against on account of the danger. Operative treatment consists in opening the cyst widely, extracting the mother membrane and employing wide tamponade. To shorten coalescence it is advisable to bring the edges of the cavity together with sutures thus eliminating it.

Of the malignant tumors of the spleen sarcoma alone demands surgical interest. The diagnosis is made in the presence of rapidly developing, hard, nodular tumors in the absence of blood changes, fever, fluctuation and malaria, but accompanied by severe pains due to tension of the capsule and traction on the ligaments. Recurring malaria is the most frequent cause of tumor-like hyperplasia of the spleen. The malarial spleen as a rule assumes enormous dimensions. Its consistency is firm and the cut surface has the appearance of raw meat. Around it firm, but highly vascular adhesions are formed, especially at the lower pole. Pressure symptoms as a rule are mild but the dystopic spleen by traction on its ligaments causes severe pain. The diagnosis as a rule is not difficult when the history and the characteristic form of the tumor are considered. Extirpation should be undertaken only in the presence of severe disturbances and in which the upper pole lies below or only a little below the edge of the costal arch. Partial ligation of the vessels of the pedicle is technically as difficult and has not proven practical. Splenectomy likewise has not found many adherents. The occurrence of an isolated tuberculous splenomegaly has been proven to exist but is

relatively rare. That occurring in the miliary form of tuberculosis develops slowly and may cause quite an enlargement of the organ which at times is nodular. The general condition is not materially affected in contradistinction to the splenic pseudo-leukemia which the general condition with similar enlargement is severely affected. The diagnosis has rarely been made. The increase of the red blood cells (hyperglobulia) described by Rosengart is not pathognomonic. The treatment should be splenectomy performed as early as possible. It may be impossible in the presence of extensive adhesions in advanced cases. It is advisable to suture the spleen to the abdominal wound to establish drainage.

A wandering spleen usually occurs in the presence of diseased conditions and enlargements and especially during pregnancy. Sudden torsion of the pedicle causes stormy symptoms similar to torsions of ovarian cyst pedicles. In the presence of severe symptoms surgical treatment is indicated in a wandering spleen splenectomy for markedly diseased spleen except in leukemia and splenectomy according to Bardenheuer for a small wandering spleen. Surgical intervention is contraindicated in leukemia, anemia, splenic infarction, and in the splenomegaly of amyloid disease. Of the idiopathic splenomegalies Bant's disease alone interests the surgeon.

NEURIC

Giffin: Clinical Observations Concerning Twenty Seven Cases of Splenectomy. *Am J M Sc.* 9, 3, 447-78. By Surg., Gynec. & Obst.

The histologic examination of the spleen in cases of splenic anemia reveals no constant histological picture, and the author here reports the clinical findings in the twenty-seven cases in which splenectomy has been performed in the Mayo Clinic. For convenience these are divided into three groups: (1) those which conform closely to the clinical syndrome of splenic anemia, eighteen in number; (2) cases presenting clinical features which suggest that the splenomegaly was part of a more or less widespread infection, and secondary rather than primary; (3) miscellaneous cases. In the study of these cases the author shows twenty-seven cut outlines the splenic tumor and tabulates the post-operative results, giving the pathology, blood counts and all clinical data concerning them.

The author concludes that a proper grouping of cases showing marked splenic enlargement with an anemia of the secondary type is at present quite impossible, and that the clinical features form the best basis for tentative classification. It assists especially in recognizing clean-cut and uncomplicated cases of splenic anemia. The review indicates possible relationship between gall-bladder disease and splenomegaly and indicates more clearly in uncomplicated cases of splenic anemia that a large percentage of cases return to excellent health after splenectomy but in cases complicated by other diseases of an infectious nature the value of splenectomy is questionable.

H. A. FORBES

SURGERY OF THE EXTREMITIES

DISEASES OF BONES, JOINTS, MUSCLES, ETC.
GENERAL CONDITIONS COMMONLY
FOUND IN THE EXTREMITIES

Claret and Dubreuil. Action of the X-Ray on the Development of Callus. Comparative Study of Radiographic and Microscopic Aspect of Callus (*Action des rayons X sur le développement du cal. Étude comparative des images radiographiques et microscopiques du cal*). *J. de physiol. et de pathol.* 1913. 9. 3. xv. 367. By Journal de Chirurgie.

In the other experiment fractures were produced in the legs of dogs and then immobilized in plaster. Some were treated with Röntgen rays and the dogs killed after variable time in order to determine the influence of the rays upon the formation of callus. Others were radiographed but not subjected to long exposure and were used to determine the histologic significance of the radiographic appearance of new-formed callus. His conclusions:

Cartilaginous callus uniting fracture is not recognizable by shadows.

The union may appear firm upon clinical examination as result of fibrous or cartilaginous callus, and yet the radiograph may resemble that of recent fracture.

If a dog not exposed to treatment with the rays, the bony callus makes its appearance between the eleventh and seventeenth day. If one treated by long exposure to the X-rays on different spots of the fracture the bony callus is delayed until the forty-first day.

If only one aspect of the fractured surface has been exposed to the rays the callus appears first on the opposite side.

These effects of the rays are the same whether the exposures are made before or after the fracture but the formation of the callus is only delayed if finally follows its normal course. PIERRE CRETÉ.

Marchard. The Use of Tuberculin in Osteous Tuberculosis in Children (*De l'emploi de la tuberculine dans la tuberculose osseuse chez les enfants*). *Rev. méd. de la Suisse romande*, 9. 3. 1913. 335. By Journal de Chirurgie.

Marchard has experimented with TBk (Berneck tuberculin) in twenty-one cases of osteo-arthritis tuberculous in children from four to fourteen years of age. One fifteen osteo-arthritis of the knee, ten costalgias and six spondylitis cases were treated by local injections and four by hypodermics. All cases treated focally resulted satisfactorily, four had doubtful results and seven, negative. In the fungus osteo-arthritis of the knee the condition was aggravated. The successful cases would undoubtedly have cleared up as rapidly under the usual treatment.

Those treated locally the amount of local reaction and the changes in temperature varied greatly with the same dose showing no relation to the amount or quality of tuberculin used. In fact the

temperature changes in patients who were not getting tuberculin and in the periods of rest of those who did get injections were just as great as in those who were receiving regular treatment. Marchard is of the opinion that tuberculin treatment of osteo-arthritis tuberculous in children can not replace the other conservative treatment and in fact is dangerous in certain cases.

Sahli advises seeking negligible local reaction, whereas Coulson advises strong local and general reaction. It seemed difficult to find the amount of TBk necessary to produce negligible local reaction.

VALETTE stated in discussion that Marchard's technique differs from that used by Coulson. Generally speaking Marchard uses smaller doses at four-day intervals whereas Coulson makes his injections every eight days. Further Marchard treated cases of vertebral tuberculosis in which the situation was so hard to bring in contact with the TBk. In the fungus osteo-arthritis case favorable result might have been obtained by subcutaneous injections. Coulson has had good results in adults as well as in children. Vallett believes that Coulson's positive cases are very encouraging, and that more work should be done along this line. J. DUNSTON.

V. Iptus. Treatment of Surgical Tuberculosis by Means of Light Rays (*Über die Lichtbehandlung der chirurgischen Tuberkulose*). *München. med. Wochenschr.* 1913. 51. 979. By Zentralblatt für ges. Chir. L. GROSSMANN.

The author discusses the physiological influence of light, with special reference to its remotest effects. He reviews the technique of heliotherapy used by Rollier for its general systemic effect and by Bernhard for its local effect on the diseased area in cases of surgical tuberculosis. Clinical experience at the Rappensanatorium has convinced the author that heliotherapy can be as successfully applied in the lowlands as in high altitudes if one takes advantage of the artificial light rays. The author employs the electric arc light as well as the quicksilver vapor light and the quartz lamp.

He believes that light therapy is destined to take an important place in the treatment of surgical tuberculosis. "We can state positively that light therapy in its present form in the lowlands can compete with heliotherapy of the highlands. This has been made possible by the ease with which natural and artificial light can be combined. When the two methods are compared it cannot be disputed that artificial light has certain advantages. It is always at our disposal and not dependent upon weather conditions. The amount and intensity of the light can be regulated, which is not true of the ever varying sunlight with its accidental ultraviolet constituents. The quartz lamp furnishes richness in ultraviolet rays which surpasses even that of natural sunlight of the highlands. BAUMANN.

Müller A Case of Acute Bone Atrophy (Über einen Fall von akuter Knochenatrophie) *Deutsche wiff. Arch. Zischl* Berl. 9 3 xlv 387.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Müller treated a case of acute bone atrophy for many months and states that it is desirable in such a condition to have X-ray examinations taken as early as possible. The diseases with which this may become confused are chronic articular rheumatism, neuritis, traumatic joint conditions, phlegmons of the soft parts, herpes zoster etc. The typical findings upon X-ray examination are the involvement of the base and head of the bones, not of the diaphysis, as is observed in chronic atrophy due to inactivity or senile atrophy.

The author behears with Sudeck and Kleinböck that acute bone atrophy is due to tropho-neurotic reflex disturbances and recommends, if the diagnosis is correct, energetic passive motion instead of the usual treatment of rest and wrapping the limb in cotton. In his own case, the author obtained also good functional result within short time. In conclusion, he points to the fact that in spite of the good functional result obtained the bone atrophy persisted unchanged. According to his point of view the affection consists not merely in rarefaction of the bone salts due to the prolonged atrophy but in a solution of the entire bony framework. **KNOTT.**

Mellin The Multiple Brown Tumors Found in Osteomalacia (Über die multiplen braunen Tumoren bei Osteomalacia) *Arch. f. klin. Chir.* 9 3 d, 333. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports in detail three cases which he classifies as osteitis fibrosa atrophica on the basis of pathological histological studies in contradistinction to the osteitis fibrosa hypertrophica in which an increase of bony substance takes place. He emphasizes the fact that even in view of the appearance of the brown giant-celled sarcoma-like tumors there is no essential difference between these two forms of the disease. The different forms of bony malformations be attributed to loss of balance between the bone-forming cells and the bone-destroying cells, caused either by an irritation or a destruction. As the cause of the disease is still unknown it is of importance to know that the author in three cases found definite hyperplasia of the parathyroids. The findings reported first by Erdheim are therefore confirmed. In the interpretation of the brown tumors the author's views coincide with those of Lubarsch and Rehnman. He considers the epulis-like tumors not as definite new growths but as hyperplasias incident to the irritative and destructive processes occurring in the bones. **STAMMELER.**

Domingo Cystic Tumor of the Head of the Femur (Tumor quístico de la cápsula del fémur). *Rev. de l'Hosp. Montevideo*, 9 3 vi, 3.

By Journal de Chirurgie.

The patient some years before coming under observation had violently twisted his left lower limb

injuring the hip. He was confined to bed for one month and was not able to walk for five months. Four years ago the patient fell from a horse upon the left hip. Following this accident he experienced pains in the inguinal region. He began to limp and one year ago noticed a swelling at the outer part of Scarpa's triangle which steadily increased.

Examination showed swelling in the above named region and trophy of the limb. Movements were painful. Immediately inferior to Poupert's ligament there was a hard irregular mass of about 8 cm. in diameter also several small glands. The great trochanter was increased in size. X-ray showed a tumor the size of an orange, surrounding the head of the femur the anatomical neck and upper part of great trochanter.

Operation. Antero-external incision. The tumor was opened and bloody fluid escaped the cavity was lined with loose soft tissue and the wall were smaller cavities giving the cyst sponge-like appearance. The cavity was packed, and following the operation it contracted and healed. Histological examination of the bony fragments revealed cystic enchondroma. The author entered into a full consideration of cysts of the long bone. **SAIVA MENDI.**

Brooks The Treatment of Gonorrheal Arthritis. *Hakemanns. Medik.* 9 3, xlviii, 47.
By Surg., Gynec. & Obst.

Results in these cases are not good. The author had all degrees of limitation of motion and believes from the literature that such is the usual result in the severe cases. There is no such thing as an idiopathic arthritis, but a primary focus always exists with definite period of metastasis for each organism — streptococcus, 24-36 hours grippe, 9 days gonorrhea 19 to 21 days.

Gonorrheal arthritis gives sudden onset involving several joints of which all clear up but one. Thus it differs from tuberculosis, in which the onset is slow and never under three weeks after injury. The knee is the most frequent site of gonorrheal arthritis. Destruction is due to the accumulation and pressure of products of infection in the capsule.

Brooks divides aspiration and injection of 5 to 10 cc. of percent formalin glycerine in intervals of from a day to a week. He secures extension by Buck's adhesive dressing with weight enough to separate the joint surfaces and relieve pain. Aspiration and clearing out the joint, if aspiration is impossible on account of thick fluid, considers vaccines next in importance to surgical measures and uses Nebser mixed vaccine from 50 to 500 million in a dose. Bier's hyperemia is of use in subacute stages. **C. E. WATTS.**

Edberg Purulent Arthritis in Sucklings and Its Importance in Future Deformities (Om purulenta smittbar artrit och dens betydelse för framtida deformiteter) *Hygien* 9 3 xxv, 203.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports four cases of purulent coxitis one case of omphalitis, one case of simultaneous

omarthrits and gonitis and no case of bilateral gonitis. The bacteriological examination verified the presence of pneumococci in a three weeks old coxitis at physiocent (pyov. ar.) In three cases viz. in 6 week old coxitis ten days old omarthrits and a 6 weeks of omarthrits and gonitis and streptococci in 1 month old bilateral gonitis. The cases of coxitis (one three week old and one year old) were not examined bacteriologically though the thor of the operation for valid reasons that both are due to septic infections. The thor as to the connection are direct operation those of Romberg who in 1906 asserted that in sucklings may 3 cases of joint affections viz. that red sea bed septic are in cavity of tuberculous joint. The author corroborates the prevailing opinion as to the significance of acute enteric (arthritis) and joint inflammations. It is of the opinion that the catarrhal synovitis of the old Volkman school is the usual pathological anatomical form not admitting the fact that central involvement observed occasionally. The author bases his opinion upon the rapid healing frequently follow slight arthrotomies. None of the author cases ended fatally the suppuration terminated after small incision. Fortunately the thor as to let born the cases described for several years. None of the coxitis cases bore luxation. The time of the first operation in 1 case of coxitis complete luxation developed in 3 subluxation fourth, 2a var. According to the author the luxation developed less frequently the acute stage of the septic coxitis. I shall these luxations developed early para-articular between the seat of the joint perforated early and the pusless synovial properties are diminished. It is not easy to sume that the luxation depends primarily upon the distension in case the former does not occur before the capsule is perforated. I think there are no septic destructive luxations observed like those that occur in osteomyelitic coxitis somewhat advanced age. The most remarkable observations brought to light by radiographic examinations are the extensive atrophy and deformity of the entire intra-articular part of the extremity. There is marked incongruity between the head and the extremities in this respect, which is noticed with increasing force and frequency as the extremities are approached. This condition is influenced by motion, muscular forms, and the burden imposed—all of which tend to induce luxations.

The thor points to the possibility of radiographic differential diagnosis between congenital luxations of hip-joint and those resulting from coxitis occurring during the suckling age. The author claims priority for these studies, which were first described by Drehmann.

In 3 cases of luxation of the hip-joint operative reposition was successful. In none of three cases of gonitis which the author could observe was there permanent injury following upon persistent arthri-

tis. These cases present a favorable prognosis, presuming early and correct treatment.

In a subsequently examined case of omarthrits, trophy of the head of the joint and soft crepitation were established but no tendency toward an habitual luxation was noted.

GISBERT.

Greiffenhagen The Mobilization of Ankylosed Elbow Joint by Means of Pericostal Transplantation (Über Mobilisierung des ankylosierten Ellenbogens durch freie Pericosttransplantation).

St. Peter's and Zacher 9 J. XXXIV, 43

By Zentralbl. f. d. ges. Chir. 2. L. Greiffenhagen

For the mobilization of an ankylosed elbow joint, Greiffenhagen advises the interposition of pericostal flaps which may be taken from the tibia. After the removal of the periosteum it is advisable to incise cortical fibers. The flaps are laid out on upon the freshened bone surface with the osteoplastic layer upon the articular surface. The outer wound is closed almost completely. Small drainage is being inserted in one angle. The arm is kept quiet. After a few weeks passive motion is begun. The defect of the tibia periosteum is closed immediately and no disturbance occurs. The author described three cases.

HOMER.

Mitchell Traumatic Lesions of the Meniscus of the Knee (Lésions traumatiques des ménisques de genou). Bull. A. med. belge d'académie d'Anvers, 9 J. 13 4

By Journal de Chirurgie.

Mitchell reports eight cases of trauma to the knee resulting injury to the internal meniscus. From these cases and those in the literature he has come to the following conclusions.

Injury to the meniscus is produced by direct or indirect trauma caused generally by sudden torsion of the knee.

The internal meniscus is usually affected.

The symptomatology is varied: (a) Localized pain over the meniscus (b) hydro-artrosis, slight or extensive (c) fixation of the joint as by foreign body (d) limitation of motion, especially extension, (e) abnormal mobility of the knee.

Excision gives better results than suturing of the meniscus. The operation is simple but strict asepsis must be employed. The author advises early exploration in all cases of chronic hydro-artrosis so that atrophy of the triceps may be prevented.

J. DENNETT

Bartow and M. Cammer Further Observations on the Use of Intr-articular Silk Ligaments in the Paralytic Joint of Polio-myelitis. Am. J. Orth. Surg. 3, 2, 440

By Surg. Gyner & Ober.

The authors have described in previous paper technique designed to give better control of the more or less flail joints following polio-myelitis. In brief the procedure is to introduce paraffined silk into the joint as to hold the parts in correct weight bearing posture and at the same time allow of

cert in amount of movement. The silk is expected to act as mechanical agent in holding the correct posture for time being, eventually to become invested with at once covering of fibrous scar tissue which will act as interarticular bony ligament in effect somewhat like the normal crucial ligaments of the knee.

The operation as described is as follows. For example a paralytic valgus of the drop foot, a small incision over the inner malleolus down to the bone. At this point a specially designed curved drill diamond pointed on the end, the point is entered into the bone and forced down and for ward, traversing malleolus at valgus scaphoid and inner cuneiform. At the point of emergence small incision is made and one or more strands of the silk led back through the tunnel the bones. A second insertion of the drill at the upper point is carried to the lower not through the bone but through the integument round the joint and the other end of the silk strand is led back to the first point forming the loop. This is pulled up tight and tied pulling the foot into slight varus and dorsiflexion. A plaster splint retains the position for from ten to twelve, the modified shoe is then applied and walking began.

This procedure may be used to include both sides of the foot for drop into the os calcis for calcaneus, or through the condyles and the heads of tibia for flat knee also through the anterior superior spine of the ileum and greater trochanter for paralysis of internal rotators also through the acromion and head of humerus for paralysis of the shoulder and subsequent fixation of the humeral head.

The authors state that all told over one joint have been so treated and almost all of these there has been marked improvement in function and position.

Earlier cases relapsed, but longer plaster fixation, no longer time for the scar envelope of the silk to form, corrected this detail.

There have been no infections and in only three cases as it necessary to remove the silk, and that only after period of from three to six months. In all these latter cases there was no sign of infection. The silk was partially disintegrated and after removal the corrected posture as well maintained by the interarticular scar.

The authors call attention to the necessity for heed to asepsis in the handling of the silk also all secondary deformity producing factors must be recognized and properly dealt with. Contractures, strong opposing muscles etc. must be eliminated. It frequently happens that a knock knee complicates flat valgus foot, and it is essential to correct the knee posture as well as the foot. Other such combinations will suggest themselves.

The authors state that they feel that this measure will find very useful field in the early surgical treatment of these lesions, as there has been no destruction of joints and yet late returning muscle power will not be interfered with. It also obviates

a long and protracted period of apparatus treatment, and furthers the use of developmental exercises.

The authors do not advocate this method as the only treatment for flat foot, but in properly selected cases have found it the best method and very useful in combination with some of the other operative procedures.

Tournoux Sarcomas of the Tendon Sheaths (Les sarcomes des gaines tendineuses). Rev de chir. 9, 3, 2161, 87. N. Y. Journal of Chirurgery.

The author reviews 93 cases of sarcoma of the tendon sheaths in 60 the tendon sheaths of the upper limbs are involved and in 33 those of the lower. The tendons of the hand, especially the flexors were affected most commonly. Trauma is often the original cause and it sometimes starts rapid growth already existing tumors. The tumors are lobulated, reddish yellow in color and very vascular. The connective tissue forms are hard, the cellular forms soft. The tendon is last invaded but the muscle and cellular tissue offer but slight resistance. Degeneration is rare and local metastases uncommon. There are round, epithelioid and giant cell sarcomas myo-fibro- and alveolar sarcomas, these by some authors being classed as endotheliomas. The giant cell form is not common.

The beginning is slow and insidious, rapid growth indicates malignancy. The tumor is first interlobular hard or elastic and not reducible. The tendons and ligaments are involved last in the process. Pain is late and not marked symptom. When the tumor becomes malignant it grows rapidly invading neighboring tissues and becoming generalized by the blood stream. Generalization occurred in only six of the cases cited. Recurrence is quite frequent (2 cases) and even the giant cell sarcomas recur. They must be distinguished from arthrosynovial cysts, exostoses and osteosarcomas. Muscular sarcomas are differentially located. The treatment should be surgical and radical (the tissues are infiltrated) (amputation or disarticulation).

In fourteen cases of round cell sarcoma there were eight recurrences usually with generalization and in sixteen cases of the epithelioid form, six recurrences. These recurrences should be treated by secondary amputation. J. OBERLIN.

Spies The Gist-Celled Sarcomas Originating in the Tendon-Sheath and Aponeuroses (Zur Lehre der von Sehnenhüllen und Aponeurosen umhüllenden Riesenzellen Sarkome). Frankf. Zeits. f. Pathol. 9, 3, 201.

By Zentralblatt f. d. ges. Chir. 1. Grenzgeb.

Spies studied forty-eight cases reported in the literature and four of his own observations in regard to the pathologic-anatomic characteristic of these tumors (for the details the original work must be consulted) and on the strength of his studies came to the conclusion that they are variety *generis*. They arise principally from the tendon sheaths of the fingers and from the palmar aponeurosis.

Etiologically no definite cause has been found, and chronic granulatio processes can safely be excluded. The development takes years, yet the tumors never become larger than egg. The tumor is definitely benign they should not recur after thorough removal. Their pathological-anatomic characteristics are as follow. They contain fairly large amount of hemosiderin. There are many multinuclear giant cells present. 3. The so-called xanthoma cells are found. 4. The structure is ragged. The tumor sharply limited by connective tissue capsule. It resembles epulis considerably especially if many giant cells are found. Spices suggest the name hemodermin containing sarcoma like to cellular xanthomatodes of the tendon sheaths and aponeuroses. Koser

Fleissig: The Granuloma of Tendon Sheaths Herebefore Defined as Giant Cell Sarcoma. Myeloma. Über die bisher als Riesenzell-sarcome—Myelome—bezeichneten Granulationsgeschwülste der Sehnenhüllen. Deutsche Zeitschrift für Chirurgie 93, 1911, 30. By Zentralblatt für Chirurgie. Grosseberg

Fleissig had occasion to observe 11 cases of tendon sheath tumors during the past 11 years. The large majority of such tumors has previously been considered giant cell sarcomas (myeloma). New detailed investigations have shown, however, that these tumors lack the principal diagnostic point of neoplasms, such as polymorphism, polymorphism, destructive invasion of surrounding tissues and outcome. For the recognition of such affection, the macroscopic appearance, such as their small size, their ragged structure and their yellowish marbled appearance is important. In support of his view Fleissig cites several illustrative cases from the literature. These granulomata take their origin more frequently from the tendon sheaths of the fingers, especially from the flexor tendons, more rarely from the tendon sheaths around the malleolus and the radiocarpal joint. They do not recur. The conclusion may be drawn that no mutilating operations are necessary but that the careful extirpation of the diseased tissue suffices. Koser

FRACTURES AND DISLOCATIONS

Dejournay: Fracture and Dislocation of the Internal Meniscus of the Knee; Excision; Cure (Fracture et lésion du ménisque interne du genou; excision; guérison). Bull et mem Soc de chir de Par 93, 1911, 481. By Journal de Chirurgie.

This communication by Dejournay was presented by Lejars. The latter pointed out the rarity of operation for lesions of the meniscus in France, which is in marked contrast to its frequency in England.

The case operated upon by Dejournay, as that of a cavalryman who was thrown from horse and whose leg was terribly flexed and rotated out and in.

It was soon able to go about his work but frequently slight movements caused the limb to become locked in semiflexion and the knee joint full of fluid.

A diagnosis of traumatic lesion of the internal meniscus was made. This meniscus was easily removed and found to consist of 1 fragment of fibro-cartilage 26 mm. and 5 mm. in length the posterior fragment being easily folded out the anterior. The anterior fragment was attached to the tibia the posterior free in the joint cavity. A perfect recovery was obtained.

Lejars mentioned several cases in which he had made diagnosis of traumatic internal meniscus and reported one of these on which he operated. Here there was merely very movable cartilage which was removed. It was still too soon to judge regarding the result.

To make diagnosis of this condition there should be sudden painful fixation of the knee followed usually by hyarthrosis and a painful point on the region of the meniscus when the limb is extended but disappearing when it is flexed. A total meniscectomy is the only manner in which to obtain a permanent cure even if it is only abnormally movable cartilage.

Demonstrations, Mllebon, Arrou, Karmoson, Trier, Quén, Mairaire and Lejars then reported series of cases of injury to the internal meniscus and discussed the etiology, diagnosis and treatment of the condition. J. Brown

Gellinsky: The Treatment of Fracture of the Calcaneus and of the Middle Bones of the Foot With Extension (Die Extensiobehandlung bei Calcaneusfraktur und der Mittelfußknochenfraktur). Zentralblatt für Chirurgie 93, 1911, 100. By Zentralblatt für Chirurgie. Grosseberg

In oblique fractures of the os calcis in which the arch has fallen, as in flat foot, the author advises tendo achillis tenotomy with extension of the foot by means of a thin board fitted to it. This is attached to the anterior part of the foot with adhesive plaster and to the heel by strong silver wire which by means of thick round, straight needle is pulled through the angle between the origin of the tendo achillis and the tubercle of the os calcis. In the hollow of the arch rubber sponge is placed. Extension is applied by means of a cord pulled to the middle of the board. After 1 week the sponge is removed and the hollow is filled up with plaster of Paris, the board is fastened to a plaster shoe and the patient is able to walk about. A similar method without tendo achillis tenotomy is applicable to malleolar fractures and all direct fractures of the middle part of the foot. Symmeson

Harlequin: Complete Backward Dislocation of the Knee; Cure by Complete Extension (Luxation complète du genou en arrière guérie par l'extension complète). Bull et mem Soc de chir de Par 93, 1911, 800. By Journal de Chirurgie.

Harlequin reports the case of a jockey who was thrown from his horse and suffered complete backward dislocation of the knee. This was easily reducible, but could not remain in place. Four and

then at 4 gm. extension weights were applied which kept the knee in position. After 3 days the extension was removed. After 34, the patient walked, and after 45, he left the hospital. Six weeks later he was able to ride in races.

Hartmann then made some clinical and experimental researches and found that there are 3 types of backward dislocations, one in which the posterior cervical ligament alone is destroyed, and one in which all the ligaments are torn. In the first type the dislocation can occur only back and in the second the head of the tibia can be carried forward and also sideways.

J. DENOVET

SURGERY OF THE BONES, JOINTS, ETC.

Murphy: Old Union Fracture of Anatomic Neck of the Femur, with Suggestions for the Immediate Treatment of this Fracture. *South M. J.* 9, 1, 1915. By Surg. C. W. C. O'Connell.

The author first discusses the uses of non-union fragments in fracture of the neck of the femur under all forms of treatment and concludes by saying that there are no fractures of the neck which must result in non-union, no matter what form of treatment is employed. Short operation procedure the reason for this being the interposition of tissue between the ends of the fragment. It is in these cases that open operation is positively indicated. The operator follows no single plan in exposing the seat of fracture, but certain cases use longitudinal incision and others U-shaped incision. When the trochanter must be removed the U-shaped incision employed by Cuthbert is then passed beneath the muscles (attached to the trochanter) and the trochanter divided. By dissecting the leg and turning the foot out and the fracture end of the neck of the femur and the shaft are easily exposed. If the trochanter is not to be removed the incision should be brought on. In this case the fascia lata is divided, and the fibers of the gluteus medius muscle are separated giving one immediate access to the fracture of the neck of the femur.

When the intervening tissue is removed the ends of the fragments are freshened and approximated. Two or more 1/8" or penny wire nails are driven through the neck into the head from the shaft side of the bone. The trochanter, if it has been removed, is then nailed in position with one wire nail. The soft parts are sutured, the wound closed without drainage. A cast is applied. Both legs are then placed in a trawls splint so as to insure abduction of the affected leg. The author emphasizes the importance of this splint in order to maintain abduction. A number of illustrations and X-ray pictures follow explaining the author's methods.

The plaster of Paris cast, including both hips with abduction of both legs, meets the conditions of impacted fractures, but it is very inconvenient to the patient. The so-called railway splint is likewise deficient. However, no splint, even with extension, abduction or lateral traction, can secure union of the

fragments when the capsule or other soft tissue lies between. The amount of traction should vary with the musculature of the individual, usually between 5 and 35 pounds. The author advises the use of the old-fashioned diachylon mole-aki plaster as rubber adhesive plaster frequently produces an eczema.

The author cautions against applying the block extension so that pressure upon the external popliteal nerve may not occur where it passes around the neck of the fibula, lest footdrop result. In applying the cast a window should be cut at this point.

In from eight to sixteen weeks, in adults, bony union will take place between the fragments of the neck of the femur. In children from five to eight weeks are sufficient to produce firm bony union.

It is of this bone work strictest asepsis must necessarily be maintained. FERNAND C. DYAS.

May: The End Result Following the Radical Operation for Knee-Joint Tuberculosis in the Adult. (Über das Endresultat radikaler Operationen Kniegelenk-überhöhlen bei Erwachsenen.) *Deutsche Zeitschrift für Chirurgie* 9, 3, 1915.

By Zentralblatt für die ges. Chir. L. Grenagel.

Since Brandes reported the results of operated cases of knee-joint tuberculosis prior to the fifteen years the author now renders the results of those over fifteen. Among seventy-seven cases (most of them performed seventeen times (eight times primarily and nine times secondarily). In the three direct cases, no excellent result was obtained in an eighteen-year-old girl after excision of the patella, excision of the synovial membrane, drainage and hyperemia. It is now ten years since the onset of the disease, her gait is perfect, her movement complete and she is able to dance. Of the forty-eight resections which did not need secondary amputation the author was able to examine thirty personally. The operation of choice is the curved method of resection according to Helfferich. By means of eight instructive tables the author gives the clinical course, findings, duration and result and treatment.

Final results. A total of seventy-seven operations were performed in sixty-seven adult patients, twenty-three of these died, seventeen of tuberculosis. Of fifty-seven cases of resection fifty-five were followed up. Of these thirty-three are living and cured, with firm ankylosis only two are unable to perform their labor, nine died, but the condition at the time of death was cured, nine had to be amputated secondarily and four died with the condition not cured.

DOUGLAS SCHULTZ.

Göbel: The Treatment of Ischemic Muscular Contraction by Free Muscle Transplantation. (Zur Bewertung der ischämischen Muskelcontractur durch freie Muskeltransplantation.) *Deutsche Zeitschrift für Chirurgie* 9, 3, 1915.

By Zentralblatt für die ges. Chir. u. L. Grenagel.

Following redressment on account of flexion contracture of the right elbow after an external

by outside forces cling on the weakened parts they are not caused primarily by unbalanced muscular action but by a loss of *tone* the force of gravity or the pressure of the body right being too powerful for the paralyzed, toneless muscles. The antagonistic muscles find themselves relaxed and therefore contract somewhat to take up a position in which they may regain their tone. After constant repetition of the defecally the new tone becomes normal and the muscles are unable to relax to their former position. Constant contraction and disuse cause them atrophy and in time fibrous changes take place in the further exaggerated the deformity. While these changes are occurring in the paralyzed muscles, the opposite is the case in those paralyzed the latter are gradually more and more over stretched and as a result healthy muscle fiber that have escaped paralysis and the ligaments, bones and joint undergo secondary changes.

The treatment is a long protracted heads. *Physical treatment* which the most important is used is to identify the paralyzed muscles. It is as possible to put the limb in such a position that they will be fully relaxed. After the use of massage electric muscle beating and other means of stimulation may be substituted. Plaster of Paris casts are not recommended on account of their rigidity and the impossibility of applying massage. The part should be retained in a slightly over-extended position the splint or apparatus should be worn continuously until it is evident that no further improvement will take place or the muscles and the tendons recover as soon as possible. *Paralysis in children* some strength and activity as soon as possible is encouraged.

The *operative or surgical treatment* deals with deformities which result from intractable deformities and those following treatment incorrectly as well as with ailing because of the rigidity of the permanent damage to the effects of the former the paralyzed muscles may regain considerable amount of power after the deformity is corrected and suitably treated but in the second class no such return of power can be expected. Measures for the correction of the former include the following: *Procedural* Straightening of the part with the hand or Thompson's method, division of tendons and other contracted structures, the removal of skin and the taking up of lax ligaments, osteotomy and the removal of portions of bone. The latter requires

such measures as muscle and tendon transplantation, arthrodesis and nerve anastomosis.

Causes of extensive paralysis which do not respond to mechanical or medical measures and are amenable for surgical treatment, some form of apparatus can usually be found of advantage.

The author takes up in detail the consideration of each individual deformity describing the methods of prominent orthopedics. *Ross B. Corbin.*

31 Ichlor. Madelung Deformity of the Wrist (Die Madelung'sche Deformität des Handgelenks) *Leipzig. d. Chir. u. Orthop. 1935. 1, 649.*

By Zsigmond Madelung, M.D., Chief, Orthopedic

Madelung's deformity is of rare occurrence only about seventy-six cases have been published. Madelung and others (Display Signet) consider the probability that rachitis plays a prominent role in the etiology as other rachitic phenomena usually accompany the deformity especially the prevailing and irregularity of the radial epiphysis. The early location of the ulna end of the epiphysis may be the cause of the deviation of the joint. The position of the carpus, therefore the

box discards all descriptions which refer to the spontaneous subluxation of the hand, stenosis. The non-progressive name Madelung's deformity is better, the nature of the disease is not clear. The term itself should be applied to the symptom complex described by Madelung himself and not to other wrist joint anomalies, such as hyperextension, dislocation of the joint in ulnar which frequently is normal or caused by rheumatic processes such as the bilateral dislocations of the ulna.

The bilateral nature of the disease such as accompanied by the radial epiphysis or traumatic curvature of the radius should not be considered as being the deformity in question, as the nature of the deformity depends not upon the external configuration, but upon the position of the distal end of the ulna in which the displaced ulna plays only a secondary role. The course of the deformity can hardly be influenced by therapy. Pains occur only during the period of formation. After one or one and one-half years the disease remains stationary and produces only cosmetic defects, which however cannot be influenced by osteotomies. In conclusion the author refers to the reversed form of the deformity the typical *inversus*, in which the radius has dorsal concave curvature. *Stevens.*

SURGERY OF THE NERVOUS SYSTEM

Nord-Joensen J., Barry and Martin. Malignant Cubital Neuroma (Adenocarcinoma du cubiti). *Presence de la* 1934, 3. By Journal de Chirurgie.

The authors report the case of a boy years old who had a tumor in his left arm the size of an orange which was first noticed six months before. On examination hard rounded nodules were found

all along the course of the great branch of the arm. There was no ulnar or subclavicular lymphadenopathy or functional disturbance.

At operation the tumor as found to have originated in the cubital nerve and it have extended by small neoplastic growths along the course of the nerve up to the axilla. Two years later there was

recurrence of the scilla which was removed, but returned after a year. The patient died following the removal of this. These diverse neoplasms of the nerves of the arm, more commonly of the cubital than of the cubital and median, make it possible in the course of each operation to state what sort of neuroma is present.

This case presented the usual clinical symptoms as it began in the deeper tissues, gradually involved the more superficial and did not give rise to disturbances of action or general health.

The first tumor was excised with some of the nerve the cut ends of which were brought together by catgut. The nerve soon re-anastomosed as is so frequently the case following excision of nerve tumors.

Histologically this tumor was a sarcoma of the cubital nerve and the question was did it develop from the nerve fibers or the nerve sheath? The authors believe this to be true neuroma developing from the sheath of Schwann and not from the fibrous tissue sheath. The tumor cells were intermixed with the nerve fibers and the sheath was intact. The tumor did not invade the neighboring tissues. J. DOWD.

If Sciatica and Its Treatment. *Med. Rec.* 9, 3, 1900, 53. By Surg. Gynec. & Obst.

The causes of sciatica may be grouped under four headings: (1) intra-pelvic disease; (2) constitutional; (3) damage to the nerve trunk; (4) damage to the sacro-lumbar joint. Occupation is a factor in the production of sciatica — in this respect exposure, over-exertion and pressure enter into consideration.

The symptoms of sciatica are pain, gait, wasting of the muscles, tenderness of the nerve trunk, pressure, sometimes loss of the knee jerk. The course of sciatica is long, tedious and discouraging.

The treatment must depend upon the cause. If rheumatic, diabetic or due to pressure the remedies must be proportioned. If there is no discoverable cause, treat it as a primary neuritis. Rest, protection to the leg and counter-irritation are the most valuable remedies, while cupping and leeches help but the Paquet's catheter is preeminently the best of all local remedies. If the case is severe inject 100 cc. of normal saline solution into the sciatic nerve. The injection may be either below the knee in the peroneal branch or above the main trunk. Both of all kinds are of benefit. Hot air is questionable. Hypodermic injections of morphia and cocaine are dangerous. Massage may help. Stretching the nerve should be relegated to the list of remedies of last resort. As far as medication is concerned the hot is large, calomel, strychnia and methylene blue are valuable. The most important thing of all is to keep up the general health of the patient. To attain this end resort to nerve foods, tonics, and especially to food-producing foods. Avoid alcohol. Give attention to the after-treatment and do not discharge the patient too early.

De Lucas. Action of the X Rays on the Peripheral and Central Nervous System. *Arch. Rad. Ray.* 9, 3, 1900, 9. By Surg. Gynec. & Obst.

To test the sensibility of central and peripheral nervous tissue to X-rays, experiments were made on white mice and guinea pigs. By protecting all except a small area over the brain spinal cord or sciatic nerve and by protecting these superficially with filters, massive doses were given without grave constitutional effects and with no local effects beyond epilation. In no case did the irradiation result in paralysis or even minor motor disturbances.

These researches help to prove that the nerve cell and fiber elements are at the lower end of the scale of radio-sensibility. This agrees with the previous findings that cells with higher and fixed functions such as are found in the retina, nerves, muscles, etc., are relatively immune to the action of X-rays. Such tissues are incapable of regeneration and are to be contrasted with tissues containing young cells such as are seen in the liver, bones, and genital glands, particularly in the growing or multiplying stages.

It has been argued from these facts that it is the nucleic content which determines the radio-sensibility of all cells and by this measure nervous tissue would be classified low in the list on account of its small proportion of chromatin elements.

HOLLIS C. PORTER.

Oehlecker. The Symptomatology and Surgery of the Marfan Disease of the Phrenic Nerve (Zur Klinik und Chirurgie des Nerven Paralysis). *Zentralbl. f. Chir.* 9, 3, 1900, 85. By Zentr. f. d. ges. Chir. u. L. Göttingen.

On the basis of a number of observations the author comes to the conclusion that in inflammatory conditions and in mechanical irritation of the endings of the phrenic nerve in the diaphragm a pain in the shoulder of the same side is felt. Mayo-Robson was the first to point out that pain in the back of the neck is a symptom of a supra-renal neoplasms transmitted by the phrenic nerve. Oehlecker observed such pains in a case of hemorrhage in the right subphrenic space in a case of perforated gastric ulcer with an exudate in the left subphrenic space, etc.

The irritation upon the periphery of the phrenic nerve is transmitted by the central ganglion to neighboring sensory nerve roots, especially to the shoulder as the principal part of the phrenic nerve arises from the fourth cervical root. Oehlecker attaches significance to the motor part of the phrenic nerve. Following the suggestion of St. Erta, he divided the phrenic nerve in diseases of the lower part of the lung which, on account of pleural adhesions, collapse of the lung cannot be obtained. He performed the phrenicotomy in three cases and gives details of the technique. He does not believe that the side reactions incident to the Kulenkampf pleural anesthesia, as described by Slevens and others, are due to irritation or paralysis of the phrenic nerve.

H. SCHULTZ.

fracture a ischemic contracture involving the second, third fourth and fifth fingers act (a). In mid-position of the hand almost complete flexion of the fingers was present. With increased flexion the fingers were prevented from increasing their dorsal flexion. (well) attempted to perform free transplantation of the muscles which still contained their nerve supply. At the operation the forearm fascia was electrically cut and half brown the musculous palmaris contracted the flexor ulnaris showed marked and the profundus very marked, fibrous degeneration, so that the kind grating beneath the muscle cut. All the flexors are severed completely. The tendinous part the fingers relaxed and could be straightened. In the defect 5-6 cm long the following muscle pieces were implanted the upper end of the sartorius into the flexor profundus that part of the external oblique belonging to the tenth in cranial nerve to the sublimis. The transplanted nerves supplying the muscles are implanted into the median nerve. After stimulation to determine the presence of motor fibers. The fascial defect supplied from the fascia lata. Under after treatment, ordering the fingers with paralysis of the hand improved during the four months had progressed so that the extended fingers could be flexed to touch the palm of the hand and finally the entire action of the fingers returned.

The result could not be attributed to the lengthening of the muscles, their injury is too severe and as myoelectric record only after several months. On the other hand the transplants could not be retained if it was as the electrical stimulation nerve and isolated contraction of the transplants. As ordering the experiment conducted by the author it is highly probable that the transplant because not a large extent and the consequent lack of action due to the contraction processes caused marked stimulation and regeneration of the remaining muscle tissue and also probably of the transplanted tissue. The method of free muscle transplantation such as is superior to the method of Henle and Mikulicz and to the recently published approx. resection method of Klapp.

Miller. The Operative Treatment of Lame Feet.
(Reprint of Operative and Laboratory Notes). Zentralblatt für Chirurgie.
J. L. S.
H. Zentralblatt für Chirurgie.

I operate on the peroneus paralyticus of isolated paralysis of the gastrocnemius and soleus muscles. Miller uses the flexor longus hallucis on the inner side of the farthest posterior as powerful and he utilized almost every muscle in distal region the great toe. On the outer side he uses the peroneus brevis and not the longus as the latter is the antagonist of the flexor pollicis. After isolating both tendons

he carries them through the holes made in the calcaneus to the medial and lateral side and draws them taut so that the foot rests in plantar flexion. He then sutures the central end of the flexor hallucis to the tendon of the peroneus brevis, and the central end of the peroneus brevis to the tendon of the flexor longus hallucis so that he obtains a muscle with two heads. The tendo achillis is then shortened by folding it upon itself. The foot is fixed in plantar flexion for four or five weeks.

II. Arthrodesis of the talocalcaneal joint in paralytic feet. The distal phalanx of the talocalcaneal joint occurs either a varus or valgus position of the foot and not in the talocalcaneal joint which forms broad roll. Miller uses the Chopart and talocalcaneal joint by doing a resection of the cartilages. He thus obtains a foot which in its posterior part is quite firm. The talus, calcaneus, navicular and cuboid bones then form a firm body mass pronation and supination being excluded. The foot can develop normally.

Sennett.

Yedova. A successfully held On esopla the Amputation of the Femur for Movable Artificial Legs.
(Reprint of Yedova's supracardiac hernia and pleurotomy & cephalic craniotomy for). Zentralblatt für Chirurgie.
J. L. S.
By Journal of Chirurgie.

In the case of the lower limb resistance to pressure the best quality is sought for. The osteoplasty or fusion of the medullary canal and the articular mobility of the soft parts between the bone and articular limb are of great importance. Different methods of obtaining this resistance were studied, especially that of Gritti.

In the operation the surface of the bone is protected by turning back the patella and holding it in place by suturing its ligaments to the flexor tendons (Rudolfs method). The author believes that the stump could be much more serviceable if a movable osteocutaneous flap is placed below the bone stump being made movable by the flexors and extensors of the leg.

Instead of removing the patella cartilage as Gritti does Yedova leaves the patella intact. He makes new articular surface for the femur by transplanting cartilage-covered bone from the condyles and trochanters to the bony stump. To do this transplantation successfully the two pieces must be cut exactly perpendicularly and the femur cut obliquely from before back and. The patella is then reflected over the stump as the Gritti operation.

The author has tried the technique only once and has been able to follow it for only short time. It is, however, far from improved by the good location of the plastic flap, the persistent mobility of the patella and the good preservation of the muscles and tendons.

Arvink.

ORTHOPEDIC SURGERY

DISEASES AND DEFORMITIES OF THE SPINE

Henderson The Operative Treatment of Tuberculous of the Spin *St Paul M J* 9 3, xv
577 By Surg. Gynec. & Obst.

A brief résumé is made of the conservative treatment and the principles underlying it. The author refers to the importance of securing speedy bony ankylosis in any tuberculous joint. This is the object of the treatment in tuberculous of the spine. The technique of the Hibbs and Albee operations is described. Any operation which will hasten the cure in these cases should be looked upon with favor.

In 93 there were 35 cases of Pott's disease seen in the Mayo Clinic. Of these 6 were operated on. The Hibbs operation was used in three and the Albee operation in three. The age of the oldest patient operated on was 4, and that of the youngest, 3. The carrying out of support by braces after the operation was just the same as if no operation had been performed. Three of the patients were cases not controlled by conservative treatment prior to operation. Their course since operation has been one of steady improvement. Recumbency on a Bradford frame for at least one month after operation was insisted on. Following this, the use of a Taylor brace as required.

A detailed report of each case is given. It is stated that the report is essentially preliminary but the results are encouraging.

MALFORMATIONS AND DEFORMITIES

Ludloff The Open Reduction of Congenital Hip Dislocation by an Anterior Incision. *Am J Orth. Surg* 9 3, x, 438. By Surg. Gynec. & Obst.

The author describes a method for the reduction of congenital luxations of the hip in those cases in which manipulative treatment has failed, or has been followed by more or less complete relapse. The causes for these failures the author seeks in the pathologic anatomical relations of the congenitally dislocated hips, and his technique is designed to overcome these difficulties. His findings would show that although the head may be so manipulated that it is placed in position upon the acetabulum, when the thigh is in extreme abduction and outward rotation, there are strong forces which act to relax the femoral head when the position of abduction and inward rotation is approached. These forces would seem to be in the tension of the very strong upper and lateral parts of the joint capsule, and the tension of the ilio-psoas, when the head is placed in its new position.

These factors, combined with the flat acetabulum and tissues forced under the head by manipulation cause the relaxation when abduction is attempted, and would, in certain cases at least, prevent firm anchorage.

The chief steps in the operation follow. With the patient on his back and the pathological thigh at right angled abduction, an incision is made parallel to the axis of the femur from Poupert's ligament about 5 cm. downward on the lateral border of the abductor longus, leaving the pectineus and great vessels on the medial side. The exposed capsule is incised, and the tendon of the ilio-psoas is separated from the lesser trochanter and retained for later lengthening. The incision in the capsule exposes the acetabulum with the pathologic limbus and infolded membranes lying in front of the head. Incision of the isthmus and the limbus will allow the head to correctly enter the acetabulum but adduction will produce relaxation. An incision of the lateral and upper parts of the capsule along the intertrochanteric line permits a position of 45° abduction and inward rotation without relaxation. With the head in this position, the capsule is sutured as far as possible the ilio-psoas attached and the wound closed. In the author's cases plaster of Paris splint maintained this position for eight weeks when the patient was allowed to walk with a high shoe under the well foot.

The theoretical question of the weakness of the capsule by extensive incision and incomplete closure is considered, but the practical results would seem to show that a compensatory fixation follows the operation.

In the three cases cited in the paper good results have followed. All were relaxed cases, but following the open operation the reduction has been maintained in no case, two years in another one year; and in the last, nine months. Some antetorsion has followed in all the cases.

The author concludes from his experience that this method best deals with capsule and muscle tension described above, and that some method of deepening the acetabulum and strengthening the capsule would still further improve the results of the reduction.

W. W. PUNNEN.

Campbell The Causation and Treatment of Deformities Following Anterior Poliomyelitis. *Edinb M J* 9 3, x, 301.

By Surg., Gynec. & Obst.

This paper is in two parts, takes into consideration the etiology of deformities in infantile paralysis as well as the means at our disposal for the prevention, amelioration and correction of deformities which remain as result of this disease. The author divides the etiological factors into two classes.

1. The *trophic or unsupportable deformities* which comprise those which occur as a direct result of the complete destruction of the ganglion cells by which is cut off the trophic influence to the part.

2. The *preventable deformities* which appear any time after the paralysis. These are not due, except indirectly to the paralysis but are brought about

DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

Davis Excessive Thickening of Thiersch Grafts Caused by Component of Scarlet Red (Amidoazotolol) *Bull. Johns Hopkins Hosp.* 9:3, xiv 78 By Surg. Gynec. & Obst.

In the first place Davis states that he is fully convinced of the power of epithelial stimulation of certain of the organic coloring matters, namely scarlet red, soudan III, azo-dolen, pellobol, etc., when applied locally to granulating wounds. During the past ten years a number of enthusiastic articles have been published by well known investigators on the satisfactory use of these substances. These papers almost uniformly report splendid clinical results in hastening the healing of sluggish granulating wounds of varying etiology and in every situation.

The use of these coloring matters has also been objected to by some on the ground that there might be the possibility of producing epithelial overgrowth having malignant characteristics. Davis states that the consensus of opinion, deduced from experimental and clinical work, is that such danger is not great. However he sounds a note of warning against the indiscriminate use of these substances by inexperienced persons, and he reports a case in which there was an overgrowth of epithelium following the use of amidoazotolol in ulcers due to burns in which Thiersch grafting had been employed. The patient has been under observation for over two years and half since his discharge from the hospital and there is no sign of malignant degeneration anywhere. The skin, however shows distinct overgrowth of epithelium of pebbly formation.

GEORGE E. BRILLEY.

Sutton The Occurrence of Cancerous Changes in Benign New Growths of the Skin. *Am. J. M. Sc.* 9:2, 189. By Surg. Gynec. & Obst.

The author supports the view of McDonough, who has made a study of the skin from the eyelids and the naso-facial grooves, and who thinks that all new growths of these regions are atavistic. The author reports two cases in support of his views.

The first case is that of a woman who for about thirty five years had had warty growths the varying in size from millet-seed to an English walnut, which gradually increased in number until in 1906 she had more than seventy distributed asymmetrically over her face and chest. One was sectioned and found to be typical acanthoma decalves cysticum of Brooke. One year ago a small cystic tumor appeared at the inner canthus of the eye, which in the course of a few weeks broke down and extended peripherally. Despite treatment clinically it could not be distinguished from epithelioma. The second case is that of the daughter of the woman whose case is reported above. In 1905 she noticed some small flat-topped moles upon her forehead, which were pink in color, painless, irregularly distributed and slowly increasing in number. They remained stationary after attaining the size of a grain of wheat, except one located upon the right cheek which broke down in January, 1907 and as excised. It was found to be typical of rodent ulcer. Practically all of the other tumors have been removed by Fume's carbon-dioxide snow.

Tumors so closely allied in histological structure and origin occurring in mother and daughter point at least to a clinical relationship between acanthoma decalves cysticum and rodent ulcer. J. A. FARR.

MISCELLANEOUS

CLINICAL ENTITIES—TUMORS, ULCERS, ABSCESSES, ETC.

Sykoff and Neujkoff Malignant Tumors from the Biological Standpoint (*Die bösartigen Neubildungen vom biologischen Standpunkt aus*) *Neuwege* 9:1, vii, 65. By Zentralbl. f. d. ges. Chir. 1. Grossepp.

Three general biological laws may be set down. Carcinomata occur during old age and sarcomata during youth. In some species the tendency for epithelial formation is greater while in others connective tissue tumors prevail. 3. There are certain animals in which malignant tumors do not occur at all, as sheep, mules and geese. 1. Explanation of the first law. There are several biological facts recited. The temperature of the animals plays a role in mammals with low body temperature epithelial tumors develop more easily. In birds, however, which have body temperatures of 44-45 degrees connective tissue tumors are more prone to develop. On the

other hand, embryonal rests, variations in metabolism, and the lowering of oxidation processes also play an important role.

The present investigations have been conducted in regard to the oxidation ferment of tumors in general, and in malignant growths in particular. The ferments are classified into katalases, peroxidases and oxidases. The author then gives detail his method and the results of his investigations.

He carried out a total of 100 experiments and came to the following conclusions. Peroxidase is decreased in cancer cells and increased in sarcoma cells. Katalase is decreased in cancer cells but not in sarcoma cells. 3. The degree of decrease and increase is apparently in relation to the maturity and malignancy of the new growth. 4. The nuclear substance of the cancer cell is changed. 5. Electrochemical investigations make it probable that they are dealing with alkali product in the cancer cell.

and lith acid products in the sarcoma cell. 6. The usual relation between nucleus and protoplasm is disturbed in the cell of malignant new growths. 7. The cells of carcinoma and sarcoma are differentiated by their chemical and biological characteristics not only from the cells of normal tissues but also from each other. *Source.*

Nowell. An Etiological Factor in Carcinoma and Its Possible Influence on Treatment. *Boston M & S J*, 93, April, 1938. By Surg. Gynec. & Obst.

For more than a year the author has been investigating the etiology of carcinoma. While the results are not final, he reports the facts as they are at present. The experiments have been carried out with great care and each has been accurately controlled.

The author states that it is a well known fact that carcinoma develops in the waning years of activity. At this time there is a marked metabolic change going on synchronously with their retrogressions. With diminution of the metabolic there is a similar decrease in the excretory functions. As long as the change in one parallels the other the equilibrium of earlier years is maintained but if through some cause the excretory function suffers more rapid impairment, an accumulation of waste products in the system must inevitably result. Such an accumulation operates unfavorably on the general organism and possibly might produce a given group of cells morbidly, thus forming other and deleterious wastes. Further should some extraneous cause operate to produce waste matter in excess of the impaired eliminative machinery the result would be the same.

In this connection the author brings out the fact that it is conceded by many that malignant growths are primarily of traumatic origin. Traumatism here is used in the broadest sense to mean the filling of a gland causing mechanical pressure, the formation of scar tissue in short, anything that tends to produce irritation. Wherever there is an injury nature rushes to the front, greater cellular production takes place, the extent depending on the health of the individual. If however the control of this production is abnormal the increase may be so great as to cause pressure which, in turn, breaks down the surrounding tissue by affecting the blood and nerve supply. Under certain conditions these degenerative changes may result in further production of deleterious chemicals. As it has been established that certain waste products have decided action on the inhibitory centers, it is reasoned that in the above condition cellular production might be subject to constantly decreasing control resulting in constantly increasing velocity of growth. This directly through the impaired elimination of normal waste, or indirectly by the formulation through exogenous causes of abnormal waste, groups of cells might be excited to pernicious activity. Thus, in turn, might be productive of other deleterious wastes through which the control of the nerve centers regulating

cell growths might be furiously affected and the exercise of their function inhibited. Finally such inhibitory effects would possibly show progressive characteristics, as the influence would propagate its own cause.

The author states that if this theory of the origin of carcinoma is correct, then the tumor or the tissues undergoing these pernicious changes, should contain the toxic substances responsible for their continued growth and propagation. A failure to isolate such substances would not wholly prove their absence, as they might readily be compounds of such intense toxicity that the observed effects could be produced by quantities far less than could be detected by any chemical means. If however appreciable amounts of the toxine or toxins are present they should be susceptible of isolation. It is along this line that the author has conducted his experiments.

Briefly he uses the following procedure in isolating the toxic substance from the tumor tissue after it has been proven malignant by clinical and histological findings. The freshly extirpated growth was carefully freed from fat and extraneous tissue cut into small pieces and digested in water at 100° for many hours. The solution was filtered and the filtrate acidified and boiled. The soluble proteins were thus removed. The protein-free filtrate was exactly neutralized and evaporated to dryness. This was carefully extracted with pure alcohol and the extract after the removal of the alcohol by distillation was repeatedly treated with ether. The residue was then dissolved in water strongly acidified and again thoroughly extracted with ether. The extracts were then collected and the solvent removed by distillation. The residue was dissolved in water rendered alkaline, boiled for half an hour and again filtered. On spontaneous evaporation, long white needle-shaped crystals separated. These were purified by repeatedly washing in water. The crystals in the purified form were the basis on which Nowell's conclusions were drawn. The exact nature of the crystals has not been determined. As they have been freed from all organic life any results which may be obtained by their use must be referable to the inherent chemical nature and not to the presence of organized life in any of its manifested forms. All the solutions used were carefully sterilized.

The author conducted many experiments with the rabbit and guinea pig. The results are fully described. It comes to the following conclusions.

A procedure has been developed whereby a substance or substances may be isolated from carcinoma, the method precluding the presence of organic life in the end product.

This end product has been shown to be of a highly toxic character.

3. The peritoneal exudate produced by fatal intoxication is far more toxic than the original substance.

4. The tumor substance has been shown to possess not only general but also specific

icit since on injection into rabbits a dose of less than lethal amount it will produce well-defined, well characterized carcinomas the site of the primary lesion being different from and independent of that of the injection.

5 The preparation of the primary lesion is followed by the development of numerous metastatic foci distant part of the body while the characteristic hexus manifests itself.

6 The poisonous tumor preparation has been shown to be characteristic of carcinoma in.

7 By the repeated injection of very small doses large number of rabbits has been immunized.

8 The serum from the animals thus immunized possesses the power of antiposing the toxic action of the tumor substance. This has been demonstrated by injections of the serum either previous to or simultaneous with that of the tumor poison. In both cases no effect is observed from quantities of the poison which, if injected alone, could produce a fully fatal intoxication.

9 With the same it decoos injection of poison and analand it has been shown that one part of the latter will effectively antagonize 90 parts of the former. (Ann. L. C. W.)

Ryanoff, Myeloma der Leber und Milz (Ber. d. d. H. v. d. Med. Ges. 1915)
B. Zentralbl. f. d. ges. Med. (Grunberg)

The article expresses the morphological study of myeloma on the ground of these careful investigations the author denies the occurrence of true metastases of myeloma of the bone marrow. Myeloma is to be considered a disease affecting the bone hematopoietic apparatus, hyperplasia of the bone marrow cells. The so-called metastases described by former authors ought to be looked upon as pseudometastases. The latter are hyperplastic nodules of the lymphoid tissues, but these are to be found also in the internal organs under normal conditions. (H. v.)

BLOOD

Whipple and Hooper, Hemogenous and Obstructive Icterus: Experimental Studies by Means of the Eck Fistula. *J. Exp. Med.* 9: 1503.
By Surg. Cyrric & Obs.

In studying the various types of icterus the authors made use of the Eck fistula. To simulate hemogenous jaundice labeled red cells are injected intravenously into control and Eck fistula dogs, and the urine examined at frequent intervals for the time of appearance, relative amounts and duration of excretion of the hemoglobin and bile pigments. The results are in no way influenced by the Eck fistula although the blood supply to the liver is reduced to about 5 percent of the normal. Practically the same results are obtained in normal and Eck fistula dogs when hemogenous jaundice was produced by chloroform anesthesia.

Simple obstruction of the common duct combined with an Eck fistula gives rise to a definite low grade icterus with bile pigment constantly present in the urine. This observation does not harmonize with the view that bile pigments are formed solely from hemoglobin as there is no evidence of more hemolysis in a normal than in an Eck fistula dog. This suggests to the authors that the bile pigment may be formed in part at least from other substances than hemoglobin, and, further, that bile pigment formation may depend in part upon the functional activity of the liver cell rather than upon the amount of hemoglobin supplied to it.

J. F. CARRUTHERS.

Whipple and Hooper, A Rapid Change of Hemoglobin to Bile Pigment in the Circulation Outside the Liver. *J. Exp. Med.* 9: 1506, 6: 2.
By Surg. Cyrric & Obs.

The object of this communication is to submit evidence to show that hemoglobin can be transformed to bile pigment when the liver has been excluded from participation in the reaction. To show this the liver is excluded by means of an Eck fistula and ligation of both branches of the hepatic artery. The animal is then injected with labeled corpuscles drawn from its own circulation. These animals died four to six hours of hepatic insufficiency.

In another series of experiments, the liver, spleen, and intestines are excluded and in a third series, the circulation is restricted to the head and thorax. The authors summarize the results as follows:

The intravenous injection of red cells obtained from the same animal and labeled by distilled water is similar to certain types of hemolysis which result in hemogenous jaundice. This procedure cannot be criticized on the grounds of introducing toxic substances. The hemoglobin circulating in the blood stream is rapidly changed, in part at least, to bile pigment. The change goes on with practically the same rapidity in the normal circulation, in an Eck fistula animal, and in dogs with Eck fistula and hepatic artery ligation. Moreover the bile pigment formation goes on in dogs whose liver spleen and intestines have been shut out of the circulation, and those with head and thorax circulation. In the last experiments there had been no operative manipulation of the liver and the bile pigment could not have escaped from the liver and have been absorbed by the circulation above the diaphragm for example by the thoracic duct. It is possible that the endothelium of the blood vessels is the agent which brings about the rapid change of hemoglobin to bile pigment. This mechanism probably comes into play when there has been destruction of many red cells with much hemoglobin free in the plasma. The conclusion is reached that in dogs, at least, hemoglobin can be rapidly changed to bile pigment in the circulating blood without the participation of the liver.

J. F. CARRUTHERS.

Weber Intravenous Injection of Small Quantities of Human Blood for the Treatment of Severe Anæmia (Über Intravenöse Injektionen kleiner Mengen von Menschenblut bei der Behandlung schwerer Anämien) *Mitsch. und Klinische* 9 3 12, 307 By Zentralbl. f. d. allgem. Chir.

During the last four years forty-six intravenous injections were given to eighteen patients at the medical clinic at Gießen. In order to void untoward symptoms, the blood was kept for twenty-four hours in the ice-box. The dosage was 5 ccm. and was given repeatedly. Larger quantities cause stronger reactions, such as an increase of temperature, chills, quickening of pulse and breathing. Fifteen cases were treated with combined injections of serum and arsenic. The results were good. Three cases which are treated only with the injection of serum are reported in detail.

An extraordinary improvement of the general condition and the blood occurred in cases of pernicious anemia, while in the third case of severe anemia only the general condition improved and the blood did not show any marked improvement. *Worms*

Von Sear Employment of the Momburg Tube in Cases of Hemorrhage (Über Benützung der unteren Körperhohl) *Ergebn. d. Chir. u. Orthop.* 9 3 71, By Zentralbl. f. d. ges. Chir. Grenzgeb.

The author analyzed 400 cases in which the Momburg tube was employed and comes to the following conclusions: (1) The small intestine adapts itself very easily; the colon however is always compressed in its ascending and descending parts, hemorrhages and contraction scars having been observed frequently at autopsy. In non-fatal cases mucous diarrhoea and hemorrhage have been observed commonly due to mechanical injury to the walls of the bowel. (2) In the urinary system compression of the ureter is most important; the kidneys usually lying below the point of application of the tube. Transient retention of the urine occurs, but permanent injury of the kidney does not result, although in one fatal case due to anuria occurred following the application of the tube for 3½ of an hour. (3) The advantage of the tube lies in the compression of the aorta and vena cava anterior to the third lumbar vertebra. (4) Injury to the suprarenals as observed once in the human, but more frequently in animal, experiments. The fatal case due to anuria showed fresh areas of fat necrosis in the pancreas. Indirect injury to other organs may occur such as sudden death due to cardiac dilatation accident to sudden changes of blood pressure. In cases of broken compensation the danger is still greater. On account of the severe pain, anesthesia is necessary. The indications for and against the procedure are given. The Momburg tube should not be employed in every case of hemorrhage but only in selected cases and for vital indications. *Horn.*

Fonio Arrest of Hemorrhage and Treatment of Wound with Coagulin Kocher Fonio (Über die neue Blutstillungsmethode und Wundbehandlung durch das Coagulin Kocher Fonio) *Cor. Bl. f. Schweiz. Ärzte*, 9 3, 218 385, By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Many theories explaining the origin of blood coagulation are fully discussed. They all coincide in the following: Three elements combine with each other to form the active agent causing coagulation. As soon as this occurs coagulation begins in the presence of sodium salts. To prepare reliable styptic Fonio attempted to isolate one of these active substances from blood-plates. By fractional centrifugation he extracted a liquid from blood discs which were sterilized by boiling. This substance which accelerates and increases coagulability is termed coagulin Kocher Fonio. The bleeding surface is sponged and the coagulum applied to it with record syringe. On the basis of 77 operation reports, coagulin is credited with causal immediate hemostasis, which is of special advantage in bloody operations, but also of possessing a secondary action which prevents secondary hemorrhages.

In conclusion Fonio discusses the following possibilities of the remedy. He believes that connection with the usual methods of treatment it may be of decided advantage in post-partum hemorrhages due to uterine atony, placenta previa and abortions by producing a rapid and lasting coagulation. Coagulin, which is manufactured by the Gesellschaft für chemische Industrie in Basel has not yet been introduced into commerce as it is being still further subjected to tests in the surgical clinic at Bern. *Betzner.*

Schreiber The Checking of Internal Hemorrhage by Means of Intravenous Injections of Grape Sugar (Über Stillung innerer Blutungen durch intravenöse Traubenzuckerinjektionen) *Therap. d. Gegenw.* 9 3, 17 93, By Zentralbl. f. d. ges. Chir. Grenzgeb.

Schreiber by means of intravenous infusions of about 200 ccm. of 5-20 per cent solution of grape sugar as being able to check gastric hemorrhages as well as hemorrhage in typhoid cases. He describes the method as being similar in effect to the action of Veide's intravenous injection of hypertonic salt solution and sees in the grape sugar injection a definite advantage on account of its nutritive value.

VON DIET VILKOR.

Froschlich Hemorrhage from the Axillary Artery Three Months after Trauma; Ligation of the Artery; False Volkmann's Ischemic Paralysis (Hémorragie foudroyante de l'axillaire trois mois après un blessure, ligature de l'artère; fausse paralysie ischémique de Volkmann) *Rev. méd. de l'Est* 9 3, 214 294, By Journal de Chirurgie.

The author reports the case of a boy 14 years old who was injured in the axilla by a fragment of wood in August 9. There was severe hemorrhage

which ceased spontaneously. Several days later physician was consulted regarding an abscess which had developed in the axilla and opened spontaneously discharging a piece of wood. A fistula persisted and from time to time there were slight hemorrhages preceded by severe attacks of pain. After entering the hospital the fistula was irrigated regularly and an X-ray picture was made which showed no changes about the abductor.

November 14th, there was more severe hemorrhage than usual preceded by very severe pain, and on the 14th another copious hemorrhage. The child was chloroformed, the axilla opened and suppurating pocket found which there was piece of wood 3 by 1 cm. Blood was coming in spurts from the axillary artery but the hemorrhage was stopped by pressure on the subclavia. On the 15th the pressure was removed and the hemorrhage did not recur until the 16th, when it was very severe. The axillary artery was ligated below the small pectoral muscle under the clavicle.

Serum was injected as the child was cyanosed, the pulse gone and the arm cold. This coldness persisted for three days after which its temperature became normal. The arm was painful for ten days and paralysis of the flexor and tensor muscles followed. The flexors rapidly regained their function but the paralysis of the extensors remained.

This made it appear to be Volkmann ischaemic paralysis following ligation of the axillary artery. As a matter of fact there was only radial paralysis and the contracture was due to lack of action of the antagonistic muscles. The fact that the thumb and fingers could be passively in hyperextension proves it as this is impossible in ischaemic paralysis. From the electrical examination it seems that the radial paralysis will be cured. J. Denver.

Baur, Traumat. Venous Thrombosis in the Upper Extremity (Die traumatische Venenthrombose der oberen Extremität). *Deutsche med. Wochenschr.* 9, 3, 1913, 997.
By Zentralblatt f. d. ges. Chir. 1, Grossegeb.

Traumatic venous thrombosis occurs more commonly in the arm, much rarer in the lower extremity. The general practitioner sees these cases oftener than the surgeon. The clinical picture is not generally known, and is frequently taken for muscle injury, muscle inflammation or neuritis. The condition occurs commonly after an indirect injury to the arm, even though mechanical chemical or infectious injury to the wall of the vein did not take place. The onset is more or less sudden with closure of one of the large veins. The trauma may be very slight, frequently not greater than ordinary muscular exertion.

There have been only seven cases of traumatic venous thrombosis of the upper arm published. After severe muscular action the signs of venous stasis appear. A compensatory circulation in time develops, due either to absorption of part of the thrombus or to the establishment of a collateral

circulation. The return of function of the arm depends more or less on the re-establishment of the circulation. Etiologically the condition is due to accumulation of blood platelets and thrombus formation as a result of injury to the vein and interference with the blood-stream. Even in the axillary vein it seems possible that thrombus formations can occur as a result of severe muscular strain.

In regard to the prognosis is variable, especially if the thrombus is not disturbed. Embolism has never been observed. The prognosis is so far as restitutio ad integrum is concerned is decidedly bad, as the collateral circulation is usually insufficient. Venous stasis occurs, which is easily aggravated, and which interferes with the working capacity of the arm to a greater or less degree. Dr. Axen.

Major, The Wassermann Reaction in the Johns Hopkins Hospital. *Bull. Johns H. Hosp. Rep.* 9, 3, vol. 15. B. Surg. Officer & Obst.

The Wassermann reaction, as Major states, has been extensively employed in the Johns Hopkins Hospital in the past four years and their experience with it confirms the results of most workers as to its reliability and specificity as a diagnostic procedure. The first report upon its use in that clinic was made in 1910 and the present report includes the cases from September 1911 to August 1912, in which the reaction was employed. In all, 300 patients were examined, the great majority of whom were medical cases. This number includes great variety of diseases ranging from outspoken cases of syphilis to neurotic patients, in whom the reaction was made for the purpose of excluding lists. The series includes also a great variety of functional and organic nervous and cardiac diseases, nephritis, diabetes, pneumonia, typhoid fever, gastro-intestinal diseases, and fairly large number of cases of brain tumor.

Of these 300 cases, 30, or 10 per cent, gave positive reactions, while 60, or 20 per cent, were negative. Of the cases giving positive reactions, 55, or 45 per cent (nearly 1/4) gave no history of primary syphilis. The percentage of negroes in the above figures is of some interest. The Wassermann reaction was performed upon 185 negro patients, the great majority being cases of cardio-renal cases, but including also other more uncommon diseases. Of this number 6, or approximately 3 per cent, gave positive reactions, while 24, or 13 per cent, were negative. When this number is compared with the reactions on white patients, it is seen that 34 per cent of negroes compared with 7 per cent of whites, give positive reaction. This indicates a frequency of positive reactions in negroes twice that of the whites. These figures do not perhaps give sufficient indication of the greater frequency among negroes, since the total number of reactions performed on the sera of colored patients is considerably less than that on whites.

The Wassermann reaction in forty-two cases of aortic insufficiency showed twenty-one, or 50 per

cent, positive reactions. Of the twenty-one negative cases, all but six gave a history of rheumatic fever four of the six showed marked stenoclerosis, and no patient died of an acute mitral endocarditis.

The reaction was positive in twenty cases of aneurism, mostly of the aortic arch. Twenty-one, or 95 per cent, gave positive reactions. The patient who gave a negative reaction was a negro who had a definite history of syphilis seven years before. His serum was tested one month later after antiluetic treatment with the same result.

In 7 cases of tabes the Wassermann reaction showed eleven, or 64 per cent positive. Three of these patients gave a negative serum reaction, while the cerebrospinal fluid was positive and three of the patients having positive serum reactions showed negative reactions in the cerebrospinal fluid. Eight of the patients admitted luetic infection nine gave no history.

Thirteen cases of general paresis were tested. Twelve, or 90 per cent, of these were positive. The cerebrospinal fluid was positive in every case examined (seven) while the blood was negative in seven cases. Nine of the 13 gave a luetic history.

The Wassermann reaction was done with the serum of 59 cases of various types of brain tumors, including gliomas, hypophyseal tumors and cysts, cerebellar tumors and cysts, and tumors of the spinal cord all were negative results. In seven of these the test was negative both with the cerebrospinal fluid.

The author summarizes his study as follows: The past year's experience with the Wassermann reaction in this clinic confirms our faith in the reliability and specificity of this reaction. The only other diseases in which positive reactions have been reported (trypanosomiasis, yaws, scarlet fever, leprosy and possibly malaria) are either so easily diagnosed or so uncommon here as to cause no confusion. Wassermann states that he and his assistants have performed over 1,000 examinations and never yet made a false diagnosis. While the number of patients in our series is much smaller we feel that we have not made a false diagnosis the past year when the diagnosis of syphilis was placed after the names of 39 patients who showed positive Wassermann reaction. GEORGE E. BILLEY

BLOOD AND LYMPH VESSELS

O'Day Arteriography. *Westmed Med.* 9: 54.
By Surg. Gynec. & Obst.

There are two important principles to be observed in order to suture blood vessels successfully: first, perfect apposition of serosa to serosa, and second, that no trauma be inflicted upon that part of the vessel surface which is to come in contact with the blood stream. The methods of P. yr Carrel and Murphy do not neglect these principles, yet the author feels that since the occasion of vessel suture in the hands of the everyday surgeon comes only in emergency cases and since he may not be able to

successfully master the technique evolved by these men, he may follow a simpler procedure, as the author has done in one case with success. In reuniting severed arteries, the very great difficulty is to overcome the retraction of the stumps.

The technique used with success by the author in his one case and subsequently bettered by animal experimentation is as follows:

Free the stumps and wash away all debris with normal salt solution. Apply rubber-covered Crile clamps to either stump and if filling and pulsation occur just back of proximal clamp the operation may be begun. Never allow the field to become dry but keep well moistened with normal salt. The suture material may be either chromicized so-day catgut or preferably Pagenstecher linen, the size ranging from No. 00 to No. 1 depending upon the vessel.

Four even lengths of suture are cut and with the assistant holding one, one of the others is tied to it in the exact middle and the other two at distances representing one fourth the vessel circumference. The assistant now passes his suture to which the three are tied around the proximal stump a sufficient distance from its end to insure the turning back of cuff adequate to good serous apposition, and makes it secure lightly constricting the vessel all.

The cuff is now turned back and fixed by fan-shaped sutures made with needle on the free ends of each of the above placed sutures. The distal stump is then made to recede the cuff after the method of P. yr and a running stitch engaging a good bite is then carried around sewing the distal stump well to the margin of the cuff. If the vessel be large, circular tie may add an extra reinforcement otherwise this completes the work.

The distal clamp is removed first and then the proximal clamp is gradually released. The sheath is sutured over the reunited vessel. The ligature will not cut into the intima unless too great constriction has been imposed. Exudate so covers all the sutures.

FLORENCE B. RILEY

Swetchnikoff. The Action of Adrenalin upon the Peripheral Vessels (Über die Adrenalin-Wirkung auf periphere Gefässe). *Doklady Akad. Nauk S. Peterb.* 9: 3. By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The author studied the action of adrenalin upon peripheral vessels according to the newer method of measuring vasomotor influences devised by Krawkoff and Maschall, and comes to the following conclusions: (1) gradual variations of blood pressure do not influence the action of adrenalin materially with very weak adrenalin solutions and very high vascular pressure, dilatation is observed with sudden increase of pressure a dilation of the vessels is observed regularly which occurs also following an infusion of Locke's solution even upon addition of adrenalin, the action being all the more pronounced when the action of adrenalin is weakest. Rhythmic variations of vascular dilation are observed due to

Bylin Kolosowsky Drainage by Means of Thread According to Handley in Case of Elephantiasis (Ein Fall von Faden Drainage nach Handley bei Elephantiasis) *Vierteljahrsschrift der Ärzte d. russ. Ostasien-Kritik* St. Petersburg 93 xxi B. Zentralbl. f. d. ges. Chir. u. Gynäkol.

The author reports a case operated according to the Handley method. The patient before operation suffered from frequently recurring ulcerations and pains in the diseased leg. He was able to lift the limb only with the aid of his hands. Since the operation he has been entirely able to move the limb. The circumference of the lower third of the leg has decreased ten cm. and the patient is able to lift it without difficulty. The mushroom-like growth has entirely disappeared. SCHLING.

POISONS

Davis I. correlations in the Streptococcus Group. *J. Infect. Dis.* 93, xii, 386. B. Surg. Gynec. & Obst.

The hemolytic growth on blood agar capsule formation, solubility in bile, sugar reactions, pathogenic properties in animals and naphthylarctic reactions are considered in discussing the relationship existing between various members of the streptococcus group. These various properties indicate that a gradual transition occurs from one member of the group to another and it is difficult to impossible to clearly define the sub-groups. Experiment is cited pointing definitely to transformation of one member into another. This phenomenon undoubtedly takes place to certain limits and appears to be not uncommon.

SURGICAL THERAPEUTICS

Woll The Action of Collargol Enema in Septic Processes (Über die Wirkungen von Kollargol-Enemen bei septischen Prozessen) *Deutsche med. Wochenschr.* 93, xxix, 944. B. Zentralbl. f. d. ges. Chir. u. Gynäkol.

As the intrarectal injection of collargol is complicated by considerable difficulty the author injected 6 per cent solution (50 cc.) per rectum. The first patient for whom he used it as a solder with definite sepsis. Intravenous infusions of salt solution, 4 L. daily three times with 1 gm. antipyrin added, did not affect the condition at all; neither did the subcutaneous injection of iodine in 5 per cent solution. Later 5 cc. of 1 per cent solution given intravenously according to Kausch also proved ineffective and resulted in thromboses of the basilic vein. Thereupon 50 cc. of 6 per cent solution of collargol was given per rectum every fifth day and the desired effect was obtained. Temperature dropped until complete recovery resulted. A total of eight such injections were given. These injections caused absolutely no mucous membrane irritation or other unpleasant symptoms. WACHNER.

Mokrzecki The Treatment of Anthrax with Salvarsan (Zur Salvarsanbehandlung des Milzbrand) *Mitschen. med. Wochenschr.* 93, ix, 459.

By Zentralbl. f. d. ges. Chir. u. Gynäkol.

The patient had severe malignant pustule on the neck with definite constitutional symptoms. The author cauterized the pustule and then administered 6 gm. salvarsan intravenously. The local and general symptoms receded rapidly, the temperature becoming normal within twenty-four hours. He attributes the result obtained to the salvarsan infusion. H. C. A. V.

ELECTROLOGY

Snod Dosage Measurement and Control of the X Ray and Other Agents in Therapeutics. *Internat. J. Surg.* 93, xii, 90.

By Surg. Gynec. & Obst.

In considering dosage as applied to X rays it must be limited that none of the factors involved can be constant: the vacuum of the tube, the intensity of the rays, or the resistance of the receiver. The patient. Many mechanical devices have been invented to test the penetrating powers of the rays, but as a general rule the safest method to follow is to depend upon the results obtained to govern the subsequent dosage. As a rule the current should be passed through milliammeter on its way to the tube. A current of one milliamperer may be allowed to flow through it at a distance of 14 inches from the surface to be irradiated for a period of ten minutes. Its safety. This treatment may be repeated on alternate days. When the indication is malignant no longer exposure may be advisable. A secondary treatment can be secured from the use of the high-frequency current. This current has been shown experimentally to inhibit the action of the X rays upon the skin and to prevent dermatitis. The use of the two rays together is especially indicated in the treatment of many of the conditions due to the pyogenic organisms. J. H. SMITH.

Dessauer Physical and Technical Principles of Deeply Penetrating X Ray Treatment (Physikalische und technische Grundlagen der Tiefenbestrahlung) *Deutsche Gesellschaft f. Gynäk. Heilb.* 93, xia.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Gynäkol.

The author by series of experiment demonstrated that the formation of the so-called hard or penetrating rays is dependent not only on the tube but also upon the manner in which it is operated. The current led into it will use a tube equally but the number of hard rays produced will vary under different conditions. It is of no advantage to increase the current through tube beyond normal values. The important point is to operate the tube in such manner that the largest number of hard rays result. This can be accomplished in the following manner: (1) By using not too high

vessel walls of the uterus during pregnancy. This sign of pregnancy which appears first during the first month is of great importance as it disappears last following abortions. Duels and Downey state that there exist in the uterine vessel walls syncytial cells rich in chromatin, more or less regularly arranged which differ from the decidual cells.

I. two cases of tubal pregnancy which had been removed several months previously the author found such elements in the wall of the tube. This contradicts Meyer's statement that normal exochorall involution occurs two weeks after the expulsion of the foetus. The clinical importance of these cells is that they serve to differentiate between the endometritis following abortions and other forms. In the treatment of that following abortions in which syncytial cells were found by curettage 83.3 per cent were successful, 5 per cent better and 4 per cent unsuccessful. In the other endometritis cases treated by curettage there were 3 per cent successful, 41.7 per cent improved and 24.9 per cent successful. The author thinks that all the simple endometritis cases following interruption of pregnancy are curable by curettage.

These syncytial cells do not seem to have any connection with the nourishment of the foetus nor with utilization of maternal waste products. It seems that these aberrant cells have lost their normal function and are in fact benign neoplasms. If the organism is able to combat successfully Duels believes that microscopic examination of the cells of the tube or uterus would serve to substantiate diagnosis of pregnancy by Abderhalden's serum test. J. Downey

Baum Results of X Ray and Mesothorium Treatment of Uterine Carcinoma (Über die Erfolge der Röntgen- und Mesothoriumbehandlung beim Uteruscarcinom) Deutsche Gesellschaft für Gynäk., Halle, 9. 3. May By Sarg Gynec. & Obst.

Skin epithelioma have long been cured by radium. The use of hard filtered rays and large quantities of radio-active substances makes the deep seated and more rapidly growing tumors subject to treatment. 0,000 Roentgen and 3,000 milligram hours and even more have been given. He reports cures.

Squamous cell carcinoma of the portio .977 x.

Cure Cervix cancer. foul infiltrating tumor 8.200 and 1,000 milligram hours mesothorium. Only scar tissue left the curette brought nothing away.

3. Carcinoma of the vagina with involvement of the rectum 3,500 and 8,700 milligram hours mesothorium scar tissue where carcinoma was no secretion or hemorrhage.

4. Carcinoma of vagina 3,400 x and 4,700 mg. hours, clinically cured.

5. Carcinoma of the cervix 0,000 x and 5,200 mg. hours. Callous scar with no secretion.

6. Carcinoma of the cervix 900 and 10,400 mg. hours curette showed nothing.

7. Stinking carcinoma coli 9,350 mg. hours ectropion covered with epithellum operated upon.

8. Large crater-like carcinoma coli 1 24 days 13,300 mg. hours crater closed operated.

9. Large squamous-cell carcinoma involving urethra and neck of bladder, 1,000 complete cure.

10. Adenocarcinoma of the urethra 800 x and 4,600 mg. hours, reduced to a small ulcer in the urethra still under treatment.

11. Recurrence after total extirpation large ulcer with infiltration exposure aided by action, 3,500 and 4,700 mg. hours complete overgrowth. Skin formation of a scar cavity.

Recurrence after total extirpation and secondary recurrence operated large foul tumor filling the vagina 8 and 5,350 mg. hours. Scar tissue, curette shows no cancer.

All parts of the cancer that can be reached are destroyed and the part is clear. A few cells, with or without extensive scar tissue. Cases 7 and 8 showed cancer still present but they had been treated only 9 and 24 days respectively. To avoid ulceration, very hard rays must be used. Baum used lead filters. He found two cases which were cured of their cancer but died of necrosis and urinary infections. J. von R. Minna.

Döderlein Röntgen-Ray and Mesothorium Treatment of Myoma and Carcinoma of the Uterus (Röntgen-Mesothoriumbehandlung bei Myom und Carcinom des Uterus) Deutsche Gesellschaft für Gynäk. Halle, 9. 3. May By Sarg Gynec. & Obst.

The author ascribes to Krong and his school the credit for the great advance in the radiotherapy of cancer as well as of myoma. Döderlein has been working long similar lines and reports exceedingly good results from the use of mesothorium in cancer. The cancer of old people is easiest to influence. One operable case in very early stage, as treated with complete cure. Best lesion made operation very small. Döderlein presents beautiful microscopic preparations, which prove that his optimism has a firm foundation. The cancer cells are shown to disintegrate at different stages in the treatment, whereas the normal cervical mucosa remains in apparently perfect condition. A selective action of the highly filtered rays for the cancer cells is therefore proven. J. R. Minna.

Kötner A Peculiarly Shaped Myomatous Uterus (Ein myomatöser Uterus eigentümlicher Konfiguration) Deutsche Gesellschaft für Gynäk., Halle, 10. 3. May

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

The uterus had acquired the size of an adult's head, the whole corpus being even, transformed into myomatous mass of tissue. The only portion still normal was the outermost layer directly below the peritoneum. This was about 1/4 cm. thick and the mass consisted of great number of myomatous nodules. This is the first case of this sort observed by Kötner. Proof of the fact that he has seen

many hundreds of myomata. The little mucosa that was present showed normal structure. The appendages also were normal except for the peculiar smoothness of the surface of the ovary there being no Graafian follicles and very few corpora albicantia. The hymen was intact and penis-like protuberance projected from the external genitalia. The urethral opening was invaginated and there was no vaginal pouch in the recess of this. The patient was thirty-seven years old, had never menstruated and came to the clinic on account of hemorrhage from the genitalia, the result of trauma. Sauer

Freund Partial Myoma Operations (Über partielle Myomoperationen) *Deutsche Gesellschaft f. Gynäk. u. g. St.* 9, 3, 11a
B. Zentralbl. f. d. ges. Chir. Geburtsh. d. Grenzgeb.

In women approaching the menopause it is frequently possible to retain menstruation by performing a partial operation which however will be radical in effect. This is an delicate operation. The author reports a new edge-shaped myomectomy including the entire fundus and corpus uteri. The bladder is stripped off the uterus the curved incision extends from the middle of the posterior uterine wall, passes the lateral insertion to the middle of the anterior wall, corresponding incision the opposite end is made and an edge-shaped portion is excised, including all hypertrophied mucous membrane. The defect is sutured in layers. Myomatous nodules are overlooked by this method and large portions of the hypertrophied mucosa and in some cases can be removed.

The pure fundus tumor the author excises the entire fundus by means of circular incision. Menstruation was retained in all cases and became normal. In smaller tumors both operations can be performed vaginally.

Whitehouse Pathology and Treatment of Uterine Hemorrhage *Practitioner Lond.* 9, 3, 12
93 By Surg. Gynec. & Obst.

Hemorrhage due to pregnancy and abortion or neoplasms is not here considered the author confining his view to conditions where the diagnosis may be less typically set forth. His conclusions are:

1. Treatment of uterine hemorrhage can be rational unless the cause is established. The empirical administration of hemostatic drugs is frequently useless and indiscriminate curetting is dangerous.

The menorrhagia that occurs in young girls at the age of puberty is probably due to the association of functionally mature ovaries with deficient uterine musculature. It tends to spontaneous cure and should be treated by rest and, if possible removal of higher stimuli.

2. Hemorrhage in young women may be due to mucous polypus, adenomatous teri, or bacterial infections of the uterus.

3. A practical method of investigating the bacteriology of the uterus is by the collection of the menstrual blood.

4. Hemorrhages at the menopause are frequently the result of increased arterial tension, partial obstruction or degeneration and fibrosis of the uterus secondary to arteriosclerosis. It is probable that some cases of fibroses teri are syphilitic in origin. Treatment must be to reduce vascular tension. Ergot usually fails and it may be necessary to remove the uterus.

5. Faults in the calcium metabolism may be the cause of obscure uterine bleeding, which may be cured by discovery of the cause and the administration of calcium salts. Occasionally the combination of thyroid tissue with calcium is beneficial.

6. In every case of uterine hemorrhage, it is essential to look for a general cause before the local pelvic condition is investigated.

CARRY CULBERTSON

Sehrt The Thyrogenous Etiology of Hemorrhagic Metropathies (Zur thyrogenen Ätiologie der hämorrhagischen Metropathien) *München med. Wochenschr.* 9, 3, 14, 60

By Zentralbl. f. d. ges. Chir. u. Geburtsh. d. Grenzgeb.

Sehrt investigated twenty cases of complicated metropathies, finding high grade lymphocytosis (30-60%) and relative neutrophil leucopenia (45-68%) in thirteen. One case which had no lymphocytosis, presented 25% eosinophiles. Coagulation of the blood as increased in 9 cases (8-4 min. test against 9-15 minutes normally). From the analogous blood picture in hyperthyroidism he concludes that the disturbance of the relation between the thyroid and ovary may be the basis for these unexplainable hemorrhages and that many cases of hemorrhagic metropathy are really abortive cases of myxedema. On account of the parallelism of the symptoms of tetany of pregnancy and eclampsia and because of the absence of definite anatomical basis by which these two conditions can be differentiated clearly the author advises noting the blood picture of eclampsia.

The histological findings of Hofmeister who observed kidney changes after thyroidectomy the combination of myxedema and eclampsia (Herrgott, Frahmsholz, Jeandelize) the increased coagulability of the blood in eclampsia (Jarrew) lead to the suspicion that a relation exists between hypothyroidism and eclampsia. This view is supported by an observation of the authors. The patient was a woman who had had a difficult labor with severe hemorrhages three years previously and who presented the blood picture of hypothyroidism. The labor occurred spontaneously but four-day eclampsia developed. Kobner.

Bell The Pathology of Uterine Casts Passed During Menstruation. *Surg. Gynec. & Obst.* 9, 3, 21, 65
By Surg. Gynec. & Obst.

This paper is based on some original pathological investigations of uterine casts passed during menstruation. The author states that there are two distinct kinds of uterine casts: (1) True blood casts

frequency (1 entity 1 entity five cycles per sec. and) a then the ionization of the t be does not occur between the last 11 cycles. () The proportion of penetrating rays is increased if the current density in the t be d ring cycle is comparatively large. It is recommended, therefore, to start with a distinctly high primary voltage to make the current density correspondingly high. (1) If has been determined by means of spectrum analysis that the greater number of h n l rays are produced at or near the anode and the s (1) softer or less penetrating rays near the anode. If therefore constructed in separate for deep penetrating rays. (1) The g d o t age of these three points and particularly of using only the rays at the beginning of each illumination so

Bucky A Grating Diaphragm to Cut off Secondary Ray from the Object. (1) *Am. Roent. Soc. J.* 1931. By Surg. Grace & Olin

To eliminate the so called object secondary rays which are really secondary rays, the tube should project in all directions to the object shadow. (1) The primary one (1) rays meet the grating is placed between the object and the plate.

This grating is composed of numerous strips of metal (1) four centimeters and arranged crosswise on edge. The grating alone has the drawback of casting a gridiron shadow on the plate. When used in a photograph of an anatomical part each member of the grating is a square diaphragm absorbing all extraneous light from the tube. It has a very small (1) diffusion effect are eliminated. Other things being equal the length of exposure must be decreased about 5 per cent when using the grating. (1) *Horton L. Patten*

Werner The Radio-Therapy of Tumors. (1) *Radiotherapie der Geschwülste*. Verlag von J. Neumann, Neudamm. 1931. 11 Zentralblatt für allgemeine Chirurgie

Werner reports his experience (1) 3 years of treatment with röntgen rays during 3 years and half. All detailed analysis of the results and the limitations of the therapy are discussed. The röntgen method of treatment with radium mesothorium and thorium the result of which are the good and the expected to be successful in the future.

The combined radio-therapy consists of a diffuse (1) homogeneous concentric x-ray radiation, which should embrace the entire focus of the disease and the neighboring organs. A local external and internal radiation with radio-active substances by application of radiating bodies and pastes. (1) The procedure of radio-therapy methods and not those of chemotherapy. (1) The venous injections of radio-active solutions, especially of thorium x and of intravenous and intragastric injections of boric acid solutions. These

MILITARY AND NAVAL SURGERY

Lotach G. Injuries of Blood Vessels (Schwere Verletzungen der Blutgefäße). *Deutscher Chir. Kong.* 1931. 11 Zentralblatt für allgemeine Chirurgie

The author speaks of his personal experiences obtained in the Balkans and comments the following observations. The modern bullet bullet frequently causes blood vessel injuries. Excepting the severe fatal hemorrhages from large vessels, there are still a few primary hemorrhages that need immediate operative interference because the trauma and extent of the modern bullet are very small. All types of blood vessel injury are seen from cross-section perforations and complete tearing of vessels. The artery and in are very frequently injured together. Usually quiet hematoma develops, which in a few days begins to pulsate and becomes a pulsating aneurysm. All injuries in the neighborhood of large vessels about large hematoma may develop mural thrombi in the vessels and should be treated to prevent embolism. Cases with quiet hematomas if not embolized may be transported to the field hospital and good results. The dangerous hemorrhages should be observed to be little wound plugs. Only threatening rupture danger of pressure gangrene and suppuration should primary ligation be done. With proper ligation and if necessary amputation must guard against injury of blood vessels. If ligation must operate in the primitive conditions of field hospitals, ligation of vessels is difficult and time consuming. Unnecessary ligations are to be avoided and should be left to the proper healing. Hemorrhage in all cases demands immediate interference. Arteries and hemorrhage venous double ligation proximal and distal to the injury should be practiced. Under all favorable conditions this is difficult for the field man, impossible for the inexperienced.

The technique of blood vessel ligation is of considerable practical importance for emergency surgery on the battlefield. The ligation of blood vessels ought to be practiced more than ever in countries of operation. In late hemorrhages after four to five days the collateral circulation may be relied upon, (1) the extremities aneurysms are first treated by compression. The above-mentioned conditions to which however demand operations in any case. Aneurysm operations should be attempted only in permanent hospitals, here extirpation after double ligation may be performed under ideal conditions. Suture of blood vessels is only possible in very small number of cases, and then it should be done under the best possible conditions. Primary suture of vessels should not be attempted in field hospitals.

GYNECOLOGY

UTERUS

Romeo. A Large Coprolith Enclosing the Uterus and Simulating Malignant Tumor (D'un volumineux calcul fecal englobant l'utero amniotique meconia). *Gaz. d. exp. d. dis. Médic.* 93, xviii, 536.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The patient was woman 3 years of age suffering from dyspepsia for the past three years, increasing anemia, loss of eight (80 kg.). Late in she had burning and pressure over the abdominal region and frequent but small bowel movements consisting of bloody fluid. Numerous diagnoses were made: endometritis, ovarian cyst, inoperable carcinoma of the rectum, etc. The patient was almost cachectic; the small pelvis was filled with a hard tumor nearly the size of child's head. Uterus was palpable only anteriorly; its sides and posteriorly it was continued into the tumor. The mass could be palpated from below through the rectum with pressure exerted from above. It was with difficulty removed. The mass weighed 550 grs. and consisted of foul-smelling extremely hard feces. The rectum was tamponed on account of hemorrhage. The next day the tumor was easily palpated, and suppurated at the posterior wall of the vagina occurred. The patient gained in weight rapidly and complete recovery ensued.

The author emphasizes the importance of examining the rectum in all cases of pelvic disease. He also recommends the prophylaxis of chronic constipation, a frequent accompaniment, and occasionally the etiologic factor of pelvic disease. *Cotoveanu*.

Wilson. Chorio-Epithelioma Following Hydatidiform Mole and Giving Rise to Intra-peritoneal Hemorrhage from Extension in the Right Meso-salpinx. *Proc. Roy. Soc. Med.* 93, I Obst. & Gynec. Sect. 23.

By Surg. Gynec. & Obst.

Wilson's case is that of woman 30 years old, married 3 years and the mother of one child months old. She suffered from mammary become cystitis for three months following her delivery. The menstrual periods had been regular until 3 months before examination when she became pregnant and went on normally for months. At that time she was seized with bleeding which has continued up to the time of the examination. She has had some vomiting and cramp-like abdominal pains. The uterus on examination was large and fairly firm. On curettage hydatid mole the size of the closed fist was found. The patient recovered nicely. At the end of four weeks she complained of an irritable bladder, some pain and heaviness in the pelvis along with little blood stained daily vaginal

discharge. Four weeks later abdominal section free red blood was found in the peritoneal cavity with a large dark clot behind the uterus. The uterus and both appendages were removed and the patient was discharged convalescent three weeks later.

In the right fundus of the uterus there was rounded projection, encapsulated, dark red in color, friable and presenting the typical appearance of chorio-epithelioma. This growth projected as a small, polypoid, scirrhous mass into the cavity of the uterus elsewhere the endometrium was normal in appearance. The tubes and ovaries were healthy but on the posterior surface of the left meso-salpinx a small eroded nodule was discovered from which the free blood in the peritoneal cavity was coming. This also was of the same character as the fundal tumor and as no evidence of a continuity of growth could be demonstrated it was doubtless of embolic origin.

C. D. Horvath.

Raspini. Adenomyositis of the Uterus and of the Rectum (Sull'adenomyositis dell'utero del retto). *Ginecologia*, 93, ix, 577.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

After general résumé of the present status of adenomyositis the following clinical history is detailed. A female patient 36 years old, had had abortion followed by severe pains in the lower abdomen, but was otherwise generally healthy. Between the uterus and rectum an immovable tumor was palpated, but the uterus and rectum were normal. This led to the diagnosis of malignant tumor in the recto-vaginal space. The uterus was catracted by the tumor. Analysis showed that there were numerous hollow spaces lined by cylindrical epithelium. As far as the etiology is concerned the author assumes that the whole process was probably the result of an inflammatory activity and irritation. The possibility of its origin from Muller's ducts cannot be denied. The author believes that cases are not infrequent, which if microscopical examinations of inflammatory processes of the pelvic peritoneum were made would reveal more frequently the picture of adenomyositis. The most certain treatment is operative removal.

PLAZA

Davis. Contribution to the Study of Benign Chorio-Epitheliomas of the Wall of the Uterus and Tubes (Contribution à l'étude de chorio-épithéliomes bénignes dans la paroi de l'utérus et des trompes). *Bull. de l'Acad. roy. d. méd. de Belg.* 93, xxviii, 75.

By Journal de Chirurgie.

The author states that Schillek of Strasbourg has shown that there is hyaline degeneration in the

vessel walls of the uterus during pregnancy. This sign of pregnancy which appears first during the first month is of great importance as it disappears last following abortions. Dachs and Downey state that there exist in the uterine vessel walls syncytial cells rich in chromatin, more or less regularly arranged which differ from the decidual cells.

In two cases of fetal pregnancy which had been recorded several months previously the author found such elements in the wall of the tube. This contradicts Meyer's statement that normal exochorall involution occurs two weeks after the expulsion of the fetus. The clinical importance of these cells is that they serve to differentiate between the endometritis following abortions and other forms. In the treatment of that following abortions in which syncytial cells were found by curettage, 83.3 per cent were successful, 5 per cent better and 4 per cent unsuccessful. In the other endometritis cases treated by curettage there were 3 per cent successful, 43.7 per cent improved and 24.0 per cent unsuccessful. The author thinks that all the simple endometritis cases following interruption of pregnancy are curable by curettage.

These syncytial cells do not seem to have any connection with the nourishment of the fetus nor with utilization of maternal waste product. It seems that these aberrant cells have lost their normal function and re-in fact benign neoplasms which the organism is able to combat successfully. Dachs believes that microscopic examination of the walls of the tube or uterus would serve to substantiate diagnosis of pregnancy by Abderhalden's serum test.

J. Downey.

Burns Results of X Ray and Mesothorium in Treatment of Uterine Carcinoma. (Über die Erfolge der Röntgen- und Mesothorienbehandlung beim Uteruscarcinom.) Deutsche Gesellschaft für Gynäk. Halle 9, 3, May. By Sarg. Gynec. & Obst.

Skin epithelioma have long been cured by radium. The use of hard filtered rays and large quantities of radio-active substances makes the deep seated and more rapidly growing tumors subject to treatment, 9,000 Roentgen and 3,000 milligram hours and even more have been given. His reports cases.

Squamous cell carcinoma of the portio 10 per cent cured.

Cervix cancer. Local infiltrating tumor 8,700 and 4,000 milligram hours mesothorium. Only scar tissue left the curett brought nothing away.

3. Carcinoma of the vagina with involvement of the rectum 3,500 and 8,700 milligram hours mesothorium scar tissue where carcinoma was no secretion or hemorrhage.

4. Carcinoma of the vagina 3,400 and 14,700 mg. hours, clinically cured.

5. Carcinoma of the cervix 1,000 x and 5,000 mg. hours. Callous scar with no secretion.

6. Carcinoma of the cervix 1,000 and 9,400 mg. hours curett showed nothing.

7. Stinking carcinoma coli 9,350 mg. hours ectopro covered with epithelium operated upon.

8. Large crater-like carcinoma coli 1 24 days 13,370 mg. hours crater closed operated.

9. Large squamous-cell carcinoma involving urethra and neck of bladder; 1,900 complete cure.

10. Adenocarcinoma of the urethra 800 and 4,600 mg. hours, reduced to small ulcer in the urethra still under treatment.

Recurrence after total extirpation large ulcer with infiltration exposure aided by incision 3,500 and 14,700 mg. hours complete overgrowth of skin formation of scar cavity.

Recurrence after total extirpation and second ary recurrence operation large focal tumor filling the vagina 8 and 5,350 mg. hours. Scar tissue, curett shows no cancer.

All part of the cancer that can be reached are destroyed and the part is clean in a few weeks, with or without extensive scar tissue. Cases 7 and 8 showed cancer still present but they had been treated only 9 and 8 days respectively. Total ulceration, very hard rays must be used. Burns used lead filters. He found 2 cases which were cured of their cancer but died of necrosis and urinary infections.

JAMES R. MILLER.

Doderlein Röntgen Ray and Mesothorium in Treatment of Myoma and Carcinoma of the Uterus. (Röntgen- und Mesothorienbehandlung bei Myom und Carcinom des Uterus.) Deutsche Gesellschaft für Gynäk. Halle 10, 3, May. By Sarg. Gynec. & Obst.

The author ascribes to Krieger and his school the credit for the great advance in the radiotherapy of cancer as well as of myoma. Doderlein has been working along similar lines and reports exceedingly good results from the use of mesothorium in cancer. The cancer of old people is easiest to influence. One operable case in very early stage was treated to complete cure. Heart lesion made operation very unsafe. Doderlein presents beautiful microscopical preparations, which prove that his optimism has a firm foundation. The cancer cells are shown to disintegrate at different stages in the treatment, whereas the normal cervical mucosa remains in apparently perfect condition. A selective action of the highly filtered rays for the cancer cells is therefore proven.

J. R. MILLER.

Krieger A Peculiarly Shaped Myomatous Uterus. (Ein myomatöser Uterus eigenartlicher Konfiguration.) Deutsche Gesellschaft für Gynäk. Halle 10, 3, May.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynäk.

The uterus had acquired the size of adult's head, the whole corpus being evenly transformed into a myomatous mass of tissue. The only portion still normal was the outermost layer directly below the peritoneum. This was but 1/4 cm thick and the mass consisted of great number of myomatous nodules. This is the first case of this sort observed by Krieger in spite of the fact that he has seen

many hundreds of myomata. The little mucosa that was present showed normal structure. The appendages also were normal except for the peculiar smoothness of the surface of the ovary there being no Graafian follicles and very few corpora albicantia. The hymen was absent and penis-like protuberance projected from the external genitalia. The urethral opening was invisible and there was no vaginal pouch in the rest of this. The patient was thirty-seven years old, had never menstruated and came into the clinic on account of hemorrhage from the genitals, the result of trauma. SAUER.

Freund Partial Myoma Operations (Ober partielle Myomoperationen) Deutsche Gesellschaft f. Gynäk. Halle, 9. u. 10. May
B. Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

In women approaching the menopause it is frequently possible to retain menstruation by performing partial operation which however will be radical in effect. This is advantage over X-ray therapy. The author reports a new wedge-shaped myomectomy including the entire fundus and corpus uteri. The bladder is stripped off the uterus, the curved incision extends from the middle of the posterior uterine wall, passes the tubal insertion to the middle of the anterior wall, corresponds to incision on the opposite side is made and a wedge-shaped portion is excised, including all hypertrophied mucous membrane. The defect is sutured in two layers. No myomatous nodules are overlooked by this method and large portions of hypertrophied muscle and mucosa can be removed.

In pure fundus tumors the whole excises the entire fundus by means of circular incision. Menstruation was retained in all cases and became normal. In smaller tumors both operations can be performed vaginally.

Whitehouse Pathology and Treatment of Uterine Hemorrhage. Philadelphia, 1912. 92 p., 2c.
By Surg. Gynec. & Obst.

Hemorrhage due to pregnancy and abortion or to neoplasms is not here considered, the author confining his views to conditions where the diagnosis may be less typically set forth. His conclusions are:

1. The treatment of uterine hemorrhage can be rational, unless the cause is established, the empirical administration of haemostatic drugs is frequently useless and indiscriminate curetting is dangerous.

2. The menorrhagia that occurs in young girls at the age of puberty is probably due to the association of functionally mature ovaries with deficient uterine musculature. It tends to spontaneous cure and should be treated by rest and if possible removal to higher altitude.

3. Hemorrhage in young women may be due to mucous polypus, denudation of cervix, or bacterial infections of the uterus.

4. A practical method of investigating the bacteriology of the uterus is by the collection of the menstrual blood.

5. Hemorrhages at the menopause are frequently the result of increased arterial tension, portal obstruction or degeneration and fibrosis of the uterus secondary to arteriosclerosis. It is probable that in some cases of fibrosis uteri are syphilitic in origin. Treatment must be to reduce vascular tension. Ergot usually fails and it may be necessary to remove the uterus.

6. Faults in the calcium metabolism may be the cause of obscure uterine bleeding, which may be cured by discovery of the cause and the administration of calcium salts. Occasionally the combination of thyroid tissue with calcium is beneficial.

7. In every case of uterine hemorrhage it is essential to look for a general cause before the local pelvic condition is investigated.

CAREY CULBERTSON.

Sehrt The Thyrogenous Etiology of Hemorrhagic Metropathies (Zur thyrogenen Ätiologie der hämorrhagischen Metropathien) München med. Wochenschr. 9. 3. 1916.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

Sehrt investigated twenty cases of uncomplicated metropathies, finding high grade lymphocytosis (50%) and relative neutrophileucopenia (45-68%) in thirteen. One case which had no lymphocytosis, presented 2% eosinophiles. Coagulation of the blood was increased in 9 cases (8-4 ml. test against 9-0 ml. test normally). From the analogous blood picture in hyperthyroidism he concludes that the disturbance of the relation between the thyroid and ovary may be the basis for these unexplainable hemorrhages and that many cases of hemorrhagic metropathy are really abortive cases of myxedema. On account of the parallelism of the symptoms of tetany of pregnancy and eclampsia and because of the presence of a definite anatomical basis by which these two conditions can be differentiated clearly the author advises noting the blood picture of eclampsia. The histological findings of Holmester who observed kidney changes after thyroidectomy in combination of myxedema and eclampsia (Herrgott, Frühlinde, Jendelire) the increased coagulability of the blood in eclampsia (Jarrew) lead to the suspicion that relation exists between hypo-thyroidism and eclampsia. This view is supported by an observation of the author's. The patient was a woman who had had difficult labor with severe hemorrhages three years previously and who presented the blood picture of hypo-thyroidism. The labor occurred spontaneously but four-day eclampsia developed.

KONURA.

Ball The Pathology of Uterine Cysts Passed During Menstruation. Surg. Gynec. & Obst., 9. 2. 1911, 631.
By Surg. Gynec. & Obst.

This paper is based on some original pathological investigations of uterine cysts passed during menstruation. The author states that there are two distinct kinds of uterine cysts: (1) True blood cysts

of the terms () endometrial casts. If considers that the blood cast is formed by the clotting of menstrual blood within the uterine cavity. If point out that he has already shown that menstrual blood does not clot normally owing to the exertion of the fibrin ferment by the endometrium, but that when there is menorrhagia the flow is too rapid for this retractant to be effected and consequently the blood may clot either in the uterus when blood casts are formed, or the vagina. The endometrial casts may be either thick or thin according to the depth of the denudation of endometrium which is brought about by the hemorrhage which strips either the whole or the superficial layers of the endometrium. The latter shows circumstances, is denser than normal owing to the decidual-like change in the cells of the stroma.

Illustrations are given of many menstrual endometrial casts to show the macroscopical and microscopical appearances. One case is of peculiar interest for the author removed the fallopian tubes three years previously. Almost every month this patient passes thick endometrial casts which resemble macroscopically the cells of the stroma, how marked decidua-like reaction.

Chisholm Menstrual Mollities; Adult Cases. *J. Obst. & Gynec. Brit. Emp.* 9: 3, 1914, 350.
By Henry Gynn & Obst.

Basing her conclusions on a study of 100 cases and upon the previous work by Toller and Kertabam the author has formulated the following:

Among adults the causes of disturbance at the menstrual period are many more than among adolescents.

Passive hyperemia of the pelvic organs appears to be the cause of much local pain. This is relieved in the majority of cases at the first day after onset of menstruation.

Unhealthy hygienic conditions and mode of living contribute to lowering the general nervous system so that pain is readily felt and habit of pain at the menstrual period formed.

Nervous symptoms, reflex and vasomotor are often associated with secondary menstrual discomfort.

Except a very small minority of cases this menstrual discomfort does not affect the woman's capacity for carrying on her ordinary work.

A premenstrual or development of menstrual pain also pathological condition whose cause whether local or general, ought to be investigated and treated before the discomfort becomes established as a regular habit. LANCET CLINICAL.

Haymann Disturbed Menstruation I. Psychoses (Menstruationsstörungen bei Psychosen). *Zentralbl. f. d. ges. Neurol. Psychiat.* 9: 3, 1913.
By Zentralbl. f. d. ges. Neurol. Psychiat. u. d. Gynäk.

The author made careful study of catamenium in the psychic cases. The patients

aged from 15 to 46 years and included only those who failed to reveal a cause for the menstrual disturbance. All cases had been observed at least 3 months. The thoracic observations are made on 100 such patients and his conclusions are:

Catamenium is frequently met with.

It may begin at any stage of the mental disturbance. It precedes the psychic symptoms in small percentage of cases but occurs most frequently one to two months after the mental symptoms become manifest.

Menstrual disturbance seems to be absent in cases of chronic paranoia, is rare in manic-depressive psychosis, and degenerative psychosis. It is present in 50 per cent of epileptics and 33 per cent of the cases of mania and melancholia. It is most manifest in cases of dementia praecox and catatonia somewhat less in hebephrenia and least of all in dementia parietaloides. It is very frequently present in organic psychoses, including paralysis.

There is decrease in eight at the time of menstrual disturbance the eight again going up when the menses return. KÖRNER.

Ma Dysmenorrhoe and Its Treatment (Wein und Behandlung der Dysmenorrhoe). *Und. Abh.* 653.
By Zentralbl. f. d. ges. Neurol. Psychiat. u. d. Gynäk.

The majority of authors are agreed that the cause of the pain lies in the condition of the nervous system. In most cases the etiology of the nervous system is associated with hypoplasia of the genitalia and the latter must be considered as part of constitutional anomaly of autonomic innervation. It is therefore necessary to test the general condition of the patient and especially the nervous system and look for symptoms of autonomic innervation.

In addition to the general treatment psychotherapy alone is the etiologically correct one. Regulation of the bowels is of extreme importance. Sexual intercourse is advised, but no unfavorable influence upon the nervous system is feared. Locally hydrotherapy, gymnastics and massage are recommended in sexual inactivity. If the general and local treatment fail sounding and dilation of the uterus may be employed. Castration is of questionable value. X-ray treatment is dangerous because of the possibility of inducing permanent sterility or later feeble conception products. Pain incident to menorrhagia should be controlled by hot applications and the usual drugs. Nasal therapy on account of its good result deserves to be tried in each case. BRUNOFF.

Zoeppfer The Treatment of Amenorrhoea (Zur Behandlung der Amenorrhoe). *Deutsche Gesellschaft f. Gynäk. Halle.* 1914.
By Zentralbl. f. d. ges. Neurol. Psychiat. u. d. Gynäk.

In women suffering from amenorrhoea increase in the lipid content of the blood has been observed indicating hypo function of the ovaries (Neumann).

Herrmann) The author investigated this fact and determined that in 5 cases of amenorrhoea a decreased amount of lipid was found, while in another 20 cases the amount was increased. In the latter a marked improvement was obtained by the administration of ovarian extracts, while the former class did not react to ovarian preparations nor to pituitrin as recommended by Fromme.

Hill A Further Consideration of the Use of Corpora Lutea in the Treatment of Artificial Menopause. *Surg. Gynec. & Obst.* 9: 2, 1917.
By Surg. Gynec. & Obst.

Hill, in reporting twelve cases treated with corpora lutea, was careful to select patients of intelligence and reliability running from 35 to 38 years of age, cases upon whom he had operated and removed both ovaries and who showed the most severe type of nervous symptoms. Following the use of corpora lutea in these cases the nervous manifestations were completely relieved in every case. In two only was there complete relief from flashes of heat. In one case here insomnia was most disturbing symptom, complete relief was obtained from corpora lutea, five grain capsules being used three times daily (total amber 30). The author was unable to report a cure in several instances the treatment was interrupted and in others who had ceased treatment relapses occurred and they were compelled to resume treatment.

Hill in a later article calls attention to cases of artificial menopause reported to him which partial or complete failure to control symptoms were noted following the administration of corpora lutea. In seeking to determine why these reports were so much at variance with his own results, it developed that insufficient medication was the prime factor in the failure to control symptoms. In seven cases as few as twenty four capsules were given, others the maximum was not hundred. Hill calls attention to the abrupt precipitation of symptoms and the great amount of disturbance etc., and the obvious necessity for treatment of some duration. The disturbing symptoms usually appear within short time after operation, in many cases showing at the time the next period should manifest itself and continuing, unless relief is obtained, for from eighteen months to three years.

Symptoms may disappear after using corpora lutea and reappear after its administration has been discontinued. Treatment should be continued for some weeks after the patient presents normal condition. The author finds it necessary in most of his cases to give at least one hundred capsules and in others two hundred before suspending treatment. In relapsing cases the second treatment is usually much shorter than the first.

Ward The Treatment of Endometritis. *Y. J. M. J.* 9: 3, 1917. By Surg. Gynec. & Obst.

The pathology and treatment of endometritis are discussed in this paper. Ward refers to the revolu-

tionizing work of Hirschmann and Adler published in 1903 on the cycle of the four distinct stages of the endometrium throughout the menstrual month. The first stage is the premenstrual which begins six to seven days prior to the appearance of the flow and is characterized by an increase in the thickness of the mucosa two to three times that of the resting stage. The glands and their cells are enlarged and the stroma throughout has assumed a decidua type. This stage presents the conditions which were previously considered as characteristic of chronic hypertrophic endometritis. The second stage in the cycle is the menstrual stage when the blood appears and general deturgescence is noted. The glands become flattened and some of the superficial epithelium is cast off. The third or post-menstrual stage shows the mucosa thin and pale. The glands are narrow straight with contracted lumen, and the epithelial cells are small. The fourth stage is the interval stage which lasts about two weeks and shows the mucosa in what we have hitherto considered the normal condition. The normal changes, therefore, must be recognized as a temporary physiological hyperplasia and they become pathological when they are permanent or stationary. The permanent hyperplasia may be due to true inflammation or to circulatory disturbances.

Albrecht and Logothetopoulos contribute the following conclusions for an anatomic diagnosis of endometritis. It is based on certain changes in the stroma and blood vessels: circumscribed or diffuse infiltration of leukocytes, exudation, hypertrophy or atrophy of the stroma, the presence of blood pigments proliferating blood vessels and infiltration along the vessels, and inflammatory infiltration in the muscular interstices. In addition to the normal premenstrual hyperplasia there are certain pathological forms which are stationary, as the transitional forms between hyperplasia and adenoma occurring during the menopause post-menstrual and interval hyperplasia, hyperplasia following prolonged placental retention and hyperplasia after prolonged hemorrhages. 3. The permanent hyperplasia may be distinguished from the temporary form by certain anatomical features: mitosis, which is not marked in the latter form, irregularity as absence of the premenstrual folding of the mucosa, true intraglandular papillary proliferation, twisting and elongation of the glands, thickening and increasing of the epithelium and mitosis, irregular secretion, and loss of the typical premenstrual secretion. 4. In chronic inflammation the regularity of the cyclical menstrual phase is disturbed. 5. Chronic inflammation usually causes a proliferation of the uterine glands, hyperplastic and proliferating endometritis is therefore correct term, but it should be distinguished from the pathologic hyperplasia of the uterine mucosa in the absence of inflammation.

The treatment of endometritis is presented from the clinical rather than pathological standpoint. All cases of endometritis are divided into two

varieties—one those which are the result of an infection and two those resulting from circulatory disturbances. In the first variety, cut and chronic types are seen, but the chronic form, on account of the loss of virulence of the causative bacteria, or their disappearance stimulates slowly the non-infective type. The treatment is summarized as follows:

1. Leucorrhoea, the most prominent manifestation of the disease comes from the uterine cavity and not from the vagina. The treatment to be observed in acute infective cases is masterly inactivity. 2. The first and most important principle to be observed in treating cases of chronic hyperplastic endometritis is to determine the cause of the venous stasis and treat the same by appropriate measures. 3. The curette is the most valuable means for removing the greatly thickened and diseased endometrium, but if it is used alone, without correcting the cause, only temporary relief is obtained. 4. Vaginal douches, glycine packs, and postural measures, if employed properly are valuable adjuncts in aiding and improving the pelvic circulation. 5. In those cases which are probably dependent upon disturbed ovarian function, either excessive or diminished, such as in the premenstrual menorrhagias and metrorrhagias, arterio-vascular uterine chronic metritis, fibrosis, etc., and which are not benefited by the curette, local measures, a cure is sought in the direction of ovarian control, possibly by the X-ray or by means from antagonistic glands of internal secretion otherwise complete ablation of the ovaries or hysterectomy is the only resort. 6. In submitting curetted tissues to the pathologist it is imperative that the relation of the time of the curetting to the time of menstruation be stated, in order to obtain a picture of value. HARRY SCHOTTZ

Jones: I version of the Uterus, with Report of Cases Occurring During the Puerperium and Caused by Fibroid. *Surg., Gynec. & Obst.*, 94, xvi, 632. By Surg. Gynec. & Obst.

Inversion of the uterus is a very rare pathological condition and usually is caused by child-birth. It occurs once in about 25,000 obstetrical cases. Not only did the author's case develop comparatively short time after labor but it had in addition fibro-myoma as causative factor. Tumors of the uterus produce only about 3 per cent of the inversions, and when present are usually the sole cause, entirely independent of pregnancy. An extensive review of the literature connects with this case leads to the following conclusions:

Etiology. In obstetrical inversion, the primary cause is uterine relaxation. The chief secondary factors are pressure on the fundus and traction of the cord. In inversion not obstetrical in origin, uterine fibroid is almost the exclusive cause.

Pathology. Most cases are both cute and complete. In the complete cases the most important point is the degree of contraction of the cervix. In inversion of gynecological origin, the causative tumor is of prominent importance.

3. Symptoms. In acute cases, the cardinal symptoms are hemorrhage, back and pain. Later the manifestations of complicating infection may appear. In chronic inversions, the symptoms are those of marked uterine prolapse plus those of menorrhagia and metrorrhagia.

4. Diagnosis. This is made from the objective findings exclusively. In obstetrical inversions it is almost always very easy. Vaginally, large, soft, pear-shaped, bleeding tumor is found, with the placenta attached about half of the cases. Abdominally no corpus is found, but instead there is a cuplike depression. In gynecological cases, the diagnosis of inversion due to fibroid frequently is very difficult. The chief points are first the shortening of the uterine canal produced by inversion as compared with the lengthening caused by fibroid and secondly the indentation produced by the inversion on the peritoneal surface.

5. Prognosis. The mortality in acute cases in recent years has been about 33 per cent in chronic cases, about 6 per cent.

6. Treatment. In all cut and in most chronic cases, the manual reposition should be tried. In most of the former if undertaken early and in many of the latter this procedure is successful. If it fails, repositors, etc., may be used, but only for short time. If these are unsuccessful, one should resort once to some operative method, the one of choice being colpohysterotomy. This operation stands preeminent in the treatment of difficult cases of uterine inversion on account of the facility of its performance and its success in accomplishing the reduction of the inversion, and also because of the practically complete absence of mortality. The uterine incision should be made at first through the cervix only and later should be extended as far but the corpus as necessary to accomplish reposition. In inversion due to tumor the treatment is mostly that of the causative fibroid. After this is removed, if the uterus still remains, spontaneous replacement occurs in about one third of the cases, while in the other instances reduction is accomplished usually without difficulty by non-operative methods. A case is reported in detail.

Donald and Shaw: Retroflexion of the Uterus. *Practitioner*, Lond., 93, 27, 66.

By Surg. Gynec. & Obst.

These authors have compiled statistics with reference to symptoms commonly associated with retroflexion uteri. These symptoms are menorrhagia and metrorrhagia, dysmenorrhea, chronic pain, miscarriage and sterility. As a result of this study they find that in the majority of cases, these symptoms or complaints are not present in uterine retroflexion. The subsequent histories of 267 patients who were curetted for this condition have been collected. Of these 86 per cent were cured or much improved. As a result the authors argue strongly in favor of curetting alone rather than suspension operations. Their conclusions are:

1. Simple mobile retroflexion of the uterus seldom, if ever causes symptoms.

2. A patient with a mobile retroflexed uterus, suffering from a part of the symptoms mentioned and who has not improved with a course of drugs, should have the uterus dilated and curetted.

3. Any fixation operation is justifiable in these cases until curettage has been given a trial.

4. If curettage has failed to improve the condition within twelve months of the operation a fixation operation may be advised.

5. In almost all the cases in which curettage has failed, some condition other than simple retroflexion will be found.

CARRY COLUMBKROOK.

Andrews. An Unusual Case of Rupture of the Uterus. *Proc Roy Soc Med* 93, Obst. & Gynec. Sect. 7. By Surg. Gynec. & Obst.

The patient was 3 years old and had had 10 previous instrumental deliveries. In her third labor the accoucheur had pulled the head through the brim of the pelvis with the forceps with great difficulty. The child was born alive with the occiput anterior and the placenta was removed by hand. No anæsthetic was employed. Twenty-four hours later the patient's condition was grave. The swollen, lacerated cervix protruded three or four inches from the vagina, it being very dark in color and giving off an offensive odor. Examination showed (1) an incomplete rupture of the perineum, (2) the vagina was completely separated from the cervix except for about three inches in front and to the right side (3) the lower uterine segment and cervix are separated from the upper segment except on the right side and in front (4) the lower uterine segment and cervix were torn through from top to bottom on the left side. A large quantity of blood was found in the peritoneal cavity. Vaginal hysterectomy was undertaken the greatest difficulty coming in the separation of the bladder from the cervix. The torn left uterine artery could not be found. The anterior and posterior peritoneum and the vaginal walls were sewn together. Large drainage tube was inserted and the perineum was repaired.

Recovery eventually took place after four and one-half weeks of pyrexia. Andrews believes that the accoucheur must have applied the forceps on the head of the fetus, the cervix and the lower uterine segment being pulled away with the head by main force.

CARRY COLUMBKROOK.

ADNEXAL AND PERIUTERINE CONDITIONS

Abel and M. Hury. The Arrangement and Distribution of the Nerves in Certain Mammalian Ovaries. *Proc Roy Soc Med* 93, vi, Obst. & Gynec. Sect. 240. By Surg. Gynec. & Obst.

The authors briefly review the literature of this subject, giving the methods of investigation and the results of the work. The latter may be briefly summarized as follows.

(1) The ovary in the cat, dog and rabbit is richly supplied with nerves which enter at the hilum.

(2) In the ovarian tissue the nerves are divided into three sets: vascular, follicular and an interstitial set, which all anastomose.

(3) On the course of the nerves numerous varicosities are seen, while groups of very small cells are found in connection with the interstitial set.

(4) The follicular nerves lie in the tunica intima and externa and do not pass into the membrana granulosa.

(5) The function of the ovarian nerves is primarily vasomotor.

C. D. HOSKINS.

Rathe. Pseudomyxoma Peritonei with Involvement of Ovaries and Appendix (Pseudomyxoma peritoneum mit Beteiligung der Ovarien und der Appendix). *Monatsschr f Geburtsh. u. Gynäk* 913, 1900, 3.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The patient married and 41 years old, was first operated upon in 1901 for bilateral ovarian tumor the left the size of an adult head, and the right the size of a fist. The left tumor ruptured during its removal and a gelatinous pseudomucinous fluid escaped. The right one was also removed and showed the same characteristics. Gelatinous fluid was found free in the abdominal cavity. An eventful recovery ensued. The patient entered the clinic again in 1902. In the scar a mass was found the size of Hen's egg consisting of pseudomucinous growth in the peritoneal portion of the abdominal wall. Metastases were not found within the abdomen. The patient entered the hospital the third time seven months later. The general condition was bad, a number of tumors being palpable in the abdomen. During the operation tumors were found at the place of resection of the right ovary in the peritoneal covering of the bladder and disseminated throughout the entire omentum. The appendix also was cystic, being 8 cm. long and 4 cm. broad. The tumors were removed as far as possible but the patient was discharged unimproved. The author recognizes the typical course of the disease which coincides with the investigations of Werth, Olausson and others. The epithelium is disseminated and continues to proliferate as determined by microscopical examinations.

I. 190. Frankel of Hamburg proved that the disease may originate from the diseased appendix. Several analogous cases have since been described. It is remarkable that these cases always terminate favorably while those originating from ovarian disease do not. The author contradicts the statement of Meyer that pseudomucinous tumors of the ovary are secondary and that pseudomyxomata peritonei are usually derived from the appendix. JOURNAL OF

Tuffer. The Grafting of Human Ovaries (Les greffes ovariennes humaines). *J de Chir* 93, 2, 1900. By Surg. Gynec. & Obst.

Tuffer having demonstrated that oppression of menstruation and not loss of ovarian function is

the cause of post-operative trouble following castration, presents a study of the results obtained by preserving the menstrual function through ovarian grafts. A series of 130 cases proved that ovarian uterografts alone are capable of ovulating and of maintaining the menstrual function.

The author technique is as follows. Given case of salpingitis in which the uterus can be conserved, the tubes and ovaries are removed. The ovaries are immediately grafted in the loose subperitoneal cellular tissue on each side of and 5 or 6 cm. distant from the median incision, which is then closed in three layers. Even if the ovary be sclerocystic it is valuable for grafting if it be aseptic. The author strives to place the hilum of the gland next the spongyosus.

Of 44 patients operated upon in this manner the author has seen 9, 8 of whom have menstruated 14 having been followed for more than 10 months. All have had the following sequence: ovulation and menstruation. Increase in volume of no ovary then, 3 to 4 days later menstruation with disappearance of the ovarian tumefaction. This phenomenon is not witnessed until from 3 to 7 months after the operation. The vitality of the ovarian grafts has been demonstrated in 10 cases which required the removal of the grafted ovary. Voluminous arteries and veins were demonstrated at the periphery of the grafts.

The author has observed that from the date of operation until the reappearance of menstruation the patients suffer from the usual effects of castration before the menopause even if the transplanted ovaries undergo their characteristic swelling. As soon as menstruation sets in, all the accidents consequent upon castration disappear. The obvious conclusion is that menstruation and not ovulation is the more important for physiological equilibrium.

These ovarian grafts do not functionate indefinitely. The distant results from one to five and one-half years following operation, show that of 14 patients only three menstruate regularly as regards quantity and periodicity are regular but have had menorrhagia, 4 are irregular 3 after 5 years have seen progressive disappearance of menstruation, had menorrhagia with prolonged menstruation and finally 4 had pain either at the site of the graft or in the uterus and in cases, after lapse of 3 1/2 years, the graft had to be removed. While in some cases the new life of the graft with normal function is shown by normal menstruation, in other cases it adapts itself badly to its abnormal nutrition and ends by atrophy.

The author finally concludes that in young women particularly if they suffer from hyperthyroidism in the presence of inflammatory lesions requiring resection of the adnexa, the uterus should be left in place if it can be conserved, and one or both ovaries should be grafted. Thus menstruation is secured for greater or less period of physiological equilibrium of the patient.

Harms. Transplantation of Ovaries into Foreign Species; Second Report (Überpflanzung von Ovarien in die fremde Art, Mittg. d. Arch. f. Entwick. gesch. d. Organism., 9, 3, xxv, 748).
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The question considered was: Has the host of the transplanted ovary the power of influencing the germ-plasm? The ovaries of foreign species of tritons were transplanted into the domestic triton, and the two animals kept in symbiotic relationship for some days before the ovary was entirely transferred. I thus study the effects of the foreign albumen as resorted. The implanted ovaries lived and produced eggs but the offspring as that of the domestic triton. This shows that the host had no influence on the germ-plasm of the transplanted ovary.
Gallavotti.

Rödel. The Effect of Castration on the Hypophysis (Über die Hypophyse nach Castration).
Mischow med. Wochenschr. 9, 4, 11, 932.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The relations existing between the hypophysis and the genitalia are antagonistic. The experiences obtained in the study of acromegaly, dysmaturia, diposio-genitalia, and the investigations after extirpation of the hypophysis all speak for that fact. On the other hand, in cases of its primary changes in the genitalia more or less typical changes in the hypophysis also result such as hypertrophy during pregnancy and the well known changes occurring in animals following castration.

The author investigated the matter on hypophyseal glands. A definite enlargement of the gland by weight could not be demonstrated regularly under the conditions under which the castration had to be conducted. That in part is due to the age and the cachectic condition of the patients in whom it was necessary to extirpate the genital glands. If this extirpation occurs during the climacterium but few changes are demonstrable in the hypophysis whereas if it occurs in younger persons the hypophysis reacts in very short time to the removal of the ovaries or of the entire pelvic viscera and this even in the presence of severe general disease. Histologically hyperplasia of the eosinophilic cells occurs at the expense of the principal cells and especially of the basophilic cells. A special phenomenon characterizes the latter, the abundance in areas of the hypophysis in which normally but few are found.
Rüsch.

Cope and Kettl. A Case of Chorion-Epithelioma of the Fallopian Tube Following Extra Uterine Gestation. *Proc. Roy. Soc. Med.*, 19, 1, vi, Obst. & Gynec. Sect., 247.
By Surg., Gynec. & Obst.

The patient was 45 years of age and the mother of two children. Ten years after the birth of her second child, which lived 7 days, she was told she had a mole. Three years after this she was afflicted with abdominal distress characterized by great vomiting and unconsciousness. Vaginal

examination showed an enlarged painful swelling in the left fornix. These symptoms subsided after three weeks rest in bed. One year later she came to the hospital for constipation and vomiting with diagnosis of intestinal obstruction. On abdominal section a large mass filled the pelvis. The growth had its origin in the right side of the pelvis. There was no trace of the right fallopian tube. At the end of the third week she began to complain of pain in the right iliac fossa. She had some temperature and on opening the abdomen a second time dark red mass was seen between the cecum and the right brim of the true pelvis, also filling the right half of the pelvis. On removing some of the former portions, great difficulty was experienced in stopping the flow of blood. The patient died a few hours.

On post mortem examination both uterus and vagina were found to be normal, and small portions of normal ovarian tissue were found in the midst of the material removed at the first operation, and since the only traces of fallopian tube were seen on that side were in the microscopic sections, there seems to be little doubt that this was a case of tubal chorio-epithelioma. The material removed at the first operation was also chorio-epitheliomatous.

From the clinical aspect the following conclusions are offered:

(1) Chorio epithelioma of the fallopian tube has no special age of incidence.

(2) It is sometimes accompanied by previous history suggestive of a waning vitality of the fertilized ovum.

(3) The symptoms are usually those of tubal gestation followed after period of quiescence by tumor formation and wasting. In minority of cases uterine hemorrhage and hypogastric pain may be all that is noticed.

(4) Sometimes a vaginal nodule first calls attention to the condition.

(5) In any suspected case abdominal section is to be devised.

(6) All tubal gestations which have been operated should be carefully watched for considerable period after operation.

(7) If the growth is at the angle of the uterus hysterectomy is advisable.

(8) The prognosis is unfavorable, but can never be given with certainty because recovery has taken place even when secondary deposits have formed.

(9) The origin of the tumor is from the perverted growth of the chorionic villi tubal mole.

C. D. HOLLAND

EXTERNAL OMENTALIA

Possoway. The Surgical Treatment of Primary Carcinoma of the Vagina (As chodogeschwulst). *Monatsschrift für Geburtshilfe und Gynäkologie*, 93, 11, 10.

By Zentralblatt für Geburtshilfe und Gynäkologie.

The author circumcises the vagina in the introitus, forms a cuff closes the vagina and anus. Then he

makes an incision through the skin from the sacrum to the anus, removes the coccyx and isolates the rectum on all sides. The cutaneous incision is then carried to the vagina after a circular incision is made about the anus. The muscles of the pelvic floor are cut through and the rectum and vagina are pulled down. The urethra and bladder are freed from the vagina, the ureters are pushed up the plica vesico-uterina is cut and the uterus and adnexa are pulled down. The two spermatic arteries are ligated. The round and uterine ligaments also are tied. The latter, as well as the parametria, are then dissected. The fissure of the colon is then isolated so that the rectum may come down readily. The peritoneum is then closed, and deep retention muscle sutures are made with silk. Gauze drainage is provided through the middle of the wound, ending near the sigmoid and peritoneum. After the wound is closed the rectum is cut through and an anus sacralis is established. Recovery was rapid and the patient was well six months after the operation. The stool is regulated by means of controlling the diet.

FROSTEN.

Bandler. The Importance of the Incised T-T Incision in Vaginal Surgery. *Med. Rev.*, 93, 1, 1911, 64. By Surg., Gynec. & Obst.

The author strongly advocates the use of the T-incision in all gynecological cases where the vaginal route is considered in operating on multipara. Such operations as the following he does with this incision: Anterior fixation, vaginal fixation, correction of cystocele, retroflexion, vaginal hysterectomy, salpingectomy, etc.

The procedure is simple. A transverse incision is made around the cervix in the anterior fornix, then the bladder is stripped off of the anterior wall of the uterus. This discloses the vesico-uterine fold of peritoneum which can be opened under guidance of the eye. The bladder is now stripped from the anterior vaginal wall and this wall is split longitudinally beginning in the center of the transverse incision. The author claims this will make as large an opening as the ventral abdominal incision, and there is no danger of perforating the bladder.

EUGENE CARY

Kurg. Ecthiomema, or Lupus Vulvae. *J. Obst. & Gynec. Brit. Emp.*, 93, 1, 1911, 151. By Surg., Gynec. & Obst.

This is an elaborate historical, pathological and clinical study including analysis of six cases, with three tables and then microphotographs. The author's summary is as follows:

Nomenclature. The term ecthiomema has been misunderstood and misapplied by many authors. It should be retained as a useful term replacing the expression hypertrophy with ulceration. It should be clearly understood that it is a tertiary syphilitic lesion. Lupus vulvae should be replaced by the expression tuberculosis of the vulva, tuberculous ulceration and hypertrophy

occurring in the perineal region while lupus vulgaris, as found in the skin of the face, does not. Elephantiasis is a term applied to hypertrophy occurring in chronically oedematous parts whence the return of lymph has become obstructed or rendered sluggish, and where, owing to the unhealthy state of the enlarged parts, a low form of chronic inflammation has set up. The hypertrophied masses of endothelium are not oedematous tissue enlargements; they are granomatous growths with tendency to necrosis.

2. The nature of endothelium. It is not disease and generally not a form of low bronchial ulceration occurring in a well weakened by constitutional syphilis or tuberculosis. It is not merely local inflammatory state following on irritation. There is no relation between it and tuberculosis. The only connection between endothelium and malignant disease is that the former may occasionally undergo malignant degeneration. It is not due to lymph stasis hence it does not belong to the group of hypertrophies called elephantiasis.

3. Endothelium: tertiary syphilitic manifestation. (a) A direct or probable history of syphilis is almost always obtained. (b) The majority of early cases respond to antisyphilitic treatment, those later or chronic cases not so responding being no indication that endothelium may at times be due to other causes than syphilis. (c) The chronic course of endothelium marked by attempts at healing with subsequent relapses, the absence of local disturbances, the non-impairment of the general state of health indicate the syphilitic nature of the condition. (d) The masses of cicatricial tissue with subsequent contraction producing severe structures and extensive deformities is typical of no other disease. (e) In no other constitutional disease is there such constantly present combination of hypertrophy and ulceration as in syphilis. (f) The microscope reveals the typical gumma or granuloma of the third stage. (g) Up to the present time we find no cases recorded where the spirochaeta pallida was found in endothelium tissue. (h) The positive Wassermann reaction will certainly in time relegat all cases of endothelium into the field of tertiary syphilitic lesions. CASEY CULBERTSON

Nissen. Perineorrhaphy with the Buried Layer Stitch. *Internat. J. Surg.*, 9, 3, 1911, 14.
By *Surg. Gynaec. & Obst.*

The author points out the objections to the old Emmet operation, especially the disadvantage of the mass stitch or cross stitch. This stitch fails to bring the parts back into correct anatomical position, layer by layer and often allows gaps to form between the deep portions. The same objections would seem to hold good here as hold in the old method of using the mass-stitch for closing the abdominal wall. Not only are the parts not approximated accurately but many times the only layers which are well approximated are the very superficial.

With the author's method the perineum is restored

layer by layer. First the levator ani muscles are freed and brought into plain view. They are then sutured with strong chromic gut. The deep fascia is then identified and sutured in the same manner. The superficial fascia is next sutured. All of the foregoing sutures are buried. The skin is closed with some non-absorbable material. J. H. SMITH.

Schabak. Primary and End Results of the Operative Treatment of Perineal Lacerations, Vaginal and Uterine Prolapse Through Restoration of the Pelvic Floor. (*Primäre und Endresultate bei operativer Behandlung der Perineal-, Schließ- und Uterusprolaps durch Herstellung des Beckenbodens*). *Monat. Rundschau*, 9, 3, 1911, 690.
By *Zentralbl. f. d. ges. Gynaec. Geburtsh. u. Gynäkol.*

The material consisted of 56 cases. Of these there were 50 cases of perineal lacerations, about any vaginal or uterine prolapse, 9 with prolapse of vaginal wall in various grades, 14 with incomplete, and 4 with complete prolapse of the uterus. The author is of the opinion that prolapse of the vagina and uterus occurs in 90 per cent of multiparae and in 3 per cent of nulliparae. The degree of prolapse is directly proportional to the number of births. The disease is chronic. The first evidence manifests itself after the first birth, 45 per cent in 6 per cent after following births, in 30 per cent after the last labor and in 9 per cent during the climacterium. In 1 per cent the acute prolapse is due to external trauma of the perineum and is accompanied by shock. The weakness of the pelvic floor, the retroversion of the prolapse are closely associated with child-birth. A complete laceration of the perineum rarely results in prolapse of the uterus and vagina. The best results of the operative restoration of the pelvic floor are obtained by colpoperineorrhaphy.

The longest observed case dates back eleven years, the shortest nine months. The primary operative results were 908 complete recoveries, 3 deaths, 3 cases discharged uncured. Eight recurrences were observed among 50 patients, no appeared for re-examination or answered by mail. Absolute cure therefore 94.6 per cent. Mortality rate as 0.6 per cent.

The author advises high amputation of the cervix in elongated and hypertrophied cervixes, anterior colpoperineorrhaphy in cystocele V-shaped ectrosia in chronic metritis and curettage in endometritis as valuable aids in restoring the pelvic floor. They add materially to the primary and end results. As in 55 per cent of the labors following the operation laceration occurs, the author advises perineotomy for its prevention. KEMMEL.

MISCELLANEOUS

Hartmann. Extravaginal Opening of the Ureter in Women. (*Über die extraperitoneale Anastomose der Harnleiter bei Frauen*). *Zentralbl. f. Gynäk. Urol. Laus.* 19, 3, 1911, 60.
By *Zentralbl. f. d. ges. Gynaec. Geburtsh. u. Gynäkol.*

This patient was 49 years old and had been suffering with incontinence for 5 years. Although

she had noticed it on exertion yet before that time he alleged that delivery she was 4 years old was the cause of her trouble.

Examination showed that the sphincter of the bladder was intact but that there was small opening. Bladder-like dilatation the size of the grape in the vulva behind and to the left of the urethral opening. The little sac emptied and filled itself rhythmically and urine came through the accessory opening. Intramuscular injections of indigo-carmin solution demonstrated it to be case of accessory ureter. The operation performed the Stueckel operation by the vaginal route by the b-normal retractor as implanted into the bladder. The result was satisfactory.

The author then discusses the 3 cases found in the literature (3 of these being reported by the author himself). He lays stress on the dilatation of the distal end of the ureter. The only treatment is surgical. Briefly the facts of the nineteen reported cases are:

Operation	Success	Unsuccessful
Ligation of distal end		
Intravesical ureterocystotomy		
Vaginal ureterocystotomy		5
Implantation		
Abdominal route		
Extraperitoneal route		
Vaginal route	4	
Resection of kidney		

Therefore the implantation method is the operation of choice. In adults the vaginal route, and in children, the abdominal gives the best results.

Don

Vollst. Mesothorium als Substitut für X Rays (Mesothorium is Röntgenstrahlersatz). *Deutsche Gesundheitsf. Gynäk. Heft* 9 3 May.

By Zentralbl. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author reports experiments conducted for the purpose of replacing the X-ray treatment of menorrhagic metropathies and fibroids with mesothorium. The preparation is enclosed in tubes 30 and 50 mg. each, which are fastened to copper rods for insertion into the uterus. Lead and silver filters were used of thicknesses of 8 mm. Climacteric hemorrhages were easiest to influence; nine cases being cured in a short time. The result obtained in three cases of adnexal inflammation was surprising. By excluding the menstrual congestion the inflammation quieted down, the symptoms disappeared and in two cases gradual but definite decrease in the size of the tumor occurred. Seven cases of menorrhagic metritis were more obstinate, yet amenorrhea was also obtained. Eight cases of myomata were treated with variable results. Amenorrhea resulted three times, two cases are still under treatment and three cases complete failure occurred.

Among the side reactions obtained, collapse occurred once in addition to the transient tempera-

ture rise and slight general disturbances. In three cases burns of the vagina resulted due to prolonged treatment and the use of a thin filter. In one case an exudate formed in the cul-de-sac, and in two others severe inflammation of the rectal mucosa resulted from very intense exposures. The author considers the treatment of hemorrhagic metropathies and menorrhagias with mesothorium as superior to the X-ray treatment. For the treatment of myomata he advises a combined method of treatment.

Frankel. The Action of the So-Called Gas Bacillus upon the Female Genitalia (Über die Wirkung des sogen. Gasbactillus auf den weiblichen Genitalapparat). *Klin. therap. H. cliniker* 9 3 11 435.

By Zentralbl. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The principal action of the gas bacillus is its invasion of the deeper lymph spaces. The development of gas separates the muscle fasciculi causing their necrosis. The author found the gas bacillus in 11 of the cases investigated by him, but states that other anaerobic organisms may produce similar results. The prognosis in all cases of physometra is bad, even if the uterus is removed. Much more favorable cases of tympania teri, produced by an invasion of the amniotic cavity. A cure is effected frequently by rupture of the membranes alone. The dark bronze and blue cyanotic discoloration of the skin seen in cases of physometra was absent in the two second cases.

Serious results were observed only when bacilli entered deeper tissue spaces. Removal of placental rests suffices in the superficial infection of the inner surface of the uterus, even if bacilli enter the blood stream. The author is not certain that the malodorous odor occurring in the vaginal mucous membrane of pregnant women (colpohyperplasia cystica (Wundel) pneumotons cystoides vaginalis) are due to the gas bacillus. He found bacilli in three cases, but had no opportunity to make cultures. The gas cell-like structures described by Chlari were also found by him in the inner wall.

WILLIAM W.

Sella. Contribution to the Study of the Localization of Micro-Organisms in Experimental Septicæmia (Contributo allo studio della localizzazione germinale dei microorganismi nelle setticemie sperimentali). *Ann. di ist. clin. med.*, 9 3, 1907 506.

By Zentralbl. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author classifies the different results of pathological and anatomical investigations of the female genitalia in women who died of acute infections, as scarlet fever, measles, typhoid, acute articular rheumatism, etc. Experimentally he injected cultures, varying in age and dilution, obtained from carbuncle, into the vulva or into the peritoneal cavity of guinea pigs. Streptococcus and staphylococcus ureus cultures were also used. All the guinea pigs died of the infection. The ovaries and the uterus were rarely the seat of abscesses; the

t has never showed any lesions. The bacilli of the carbuncle were found in the uterus, tubes and ovaries in the latter organs especially in the germinal zone. Staphylococci were found only exceptionally in the uterus or in the ovaries. It was never possible to obtain metastases of staphylococci in the tubes.

BRUNNEN

Kroemer: The Action of Mesothorium upon Genital Tumors (Mesothorium-Einwirkung auf genitale Neubildungen). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 5. May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Kroemer reports twenty-two cases, most of which were inoperable tumors, which he treated with mesothorium and with deep applications of the X-rays. Simultaneously the treatment was a great aid with the use of Thorium X. Although the results were less satisfactory in far advanced metastatic, ovarian and testicular cancers, also cases of cervical cancer which were deemed inoperable improved so much that the uterus regained its movability in seven cases and radical removal was accomplished. In one instance radical operation could not be undertaken on account of a septic endocarditis following abortion. Similarly good results were obtained in two cases of corpus carcinoma, one with vaginal metastases also in one case of rodent ulcer of the vulva. In the last case spontaneous cure could have been waited had not coincident pruritus vulva demanded amputation. The patient was of the type in which hypersusceptibility to mesothorium exists and who consider the little capsule as a veritable fire capsule. The extirpated inguinal glands show morbid infiltration with migratory and plasma cells, but no carcinoma cells.

In all operated cases the incision scar as treated with mesothorium for two to three hours a day during convalescence. An injury to the healthy tissues was not observed. Harmless erythema and vesicle formation on the skin receded immediately with bluish paste. The quantity of the rays administered varied. In cervix cancers the dosage was 3000-7000 mg. hours of mesothorium. It consisted by several series of X-rays which were given every ten to eleven days to 100 H. The patients at the same time were given thorium X per os in dosage of 0.05-0.1 E. For the local treatment thorium X (500-1000 E) as given in the form of ointment, tampons and compresses. It was also employed in aqueous solution for hypo-

dermic injections in three cases of glandular recurrence. At minimum silver capsules were used as filters. The results are always controlled on the later extirpated organs and once on autopsy findings. An absolute cure of the cancer as only obtained twice. Glandular metastases were the least influenced and of the primary tumors, those which spread toward the vagina and external os. Deep lying carcinomatous tissues could be demonstrated in most organs.

Although the result obtained is much behind the expectations, the author nevertheless believes that the treatment with mesothorium and thorium X, supplemented with the X-rays, adds much to complete carcinoma therapy. It promises permanent cure in all external cancers of the cervix, vagina and vulva. It adds the operative therapy in so far as it improves inoperable cases. At least it does away with the sloughing and fetor. The glandular metastases have so far not been influenced favorably.

Falgowski: The Operative Treatment of Old Infiltrations (Zur operativen Behandlung alter Infiltrate). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 5. May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Falgowski considers the puncturing of infiltrations through the vagina with drainage not always sufficient, as thorough drainage is not obtained or maintained long enough. Infiltrations high up are not reached, or only with difficulty. It is also impossible to secure a lasting replacement of the uterus. The author therefore in all chronic erodates which do not improve under conservative treatment, employs more radical procedure. He performs an anterior and posterior colpotomy: blunt separation of the uterus from adhesions thorough manual tamponade of the entire pelvis deep vagino-fixation and wide drainage of the entire pelvis through both colpotomy wounds. The gauze drains are saturated in 5 to 10 per cent camphorated oil. This is renewed several times.

The procedure requires from three to five weeks and the erodate disappears with the correction of the terba position. In older women the uterus may be removed entirely. The author cured four cases in this manner. The operation is without danger as all work can usually be done extra-peritoneally. Injuries to other organs are always prevented. The disturbances in the urinary and nervous systems are likewise favorably influenced.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Hauer: Quadruplets and Their Mothers (Verfänge und Verhängnisse) *Misakes and Misdeeds*
93, ix, 8

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk.

A 29-year-old multipara gave birth to living quadruplets in the 38th to 39th week of pregnancy. The babies died within the first 24 hours. They were practically of equal size. Examination of the placenta revealed the fact that it was a case of 4 pairs of twins with three placentae. The one pair came from two eggs, the other from one egg with one union. The author discusses the various hypotheses that might explain the possible origin of the two groups. His review of the literature and statistics shows that

The mothers of quadruplets are, on average, older than the mothers of triplets, and the latter older than those of twins.

The number of primiparae giving birth to more than one child decreases with the increase in number of children of pregnancy.

3. The mothers of quadruplets are nearly all multiparae (VI paræ or even more), the mothers of triplets and twins are also multiparae (III to V-paræ).
Esteron

Füth: A Further Contribution to the Displacement of the Cecum During Pregnancy (Weitere Beiträge zur Verschiebung des Cecums während der Schwangerschaft) *Deutsche Gesellschaft f. Gynäk. Halle*, 93, May

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

In five months' pregnant woman who had never had any trouble in the iliocecal region, Füth found the cecum, the adnexa and the omentum fixed to the posterior wall of the uterus and containing an abscess in which the appendix could not be found. The abscess was three to four fingers breadth above, and lateral to the anterior superior spine. It was possible to bring down the cecum without traction to the iliac fossa and fix it there. The trouble probably commenced with adhesions between adnexa and appendix, and the cecum was drawn along with the appendix. There were no congenital anomalies of the ligaments or mesentery of the cecum or ascending colon.

The author's observation has been corroborated by Korn, Babier, Schmitt and Cook, as well by the anatomical preparations of Hahn. A very valuable corroboration is offered by the studies of cecum mobile and particularly by the fact brought out by Dreyer at autopsies that 75 per cent. of all women possess an abnormally movable cecum, whose mobility extends downward to the small pelvis as

well as upward to the edge of the liver. In spite of all this the author does not consider the question of displaced cecum during pregnancy as definitely settled and is not surprised that Renvall was unable to demonstrate marked displacement of the cecum in two women operated on during the sixth month of pregnancy.

Jaschke: Diseases of the Kidneys During Pregnancy in Women Suffering from Heart Disease (Nierenerkrankungen in der Schwangerschaft bei herzkranken Frauen) *Deutsche Gesellschaft f. Gynäk. Halle*, 93, May

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

Normal pregnancy and especially labor put considerable demands on the heart which may be dangerous. Although this hardly holds good for valvular lesions it does pertain to diseases of the myocardium occurring either alone with valvular lesions. Accordingly it is evident that pregnancy complicated with heart and kidney disease is very dangerous. This applies only to such renal diseases as cause an increase in the work of the heart muscles, i.e., hypertony which is clinically evidenced by hypertrophy of the left chamber and finally by hypertrophy of the entire heart. The cut pregnancy kidney is not of any importance. Even if it is accompanied by slight increase in the blood pressure, the latter may easily be combated by dietetic measures. In the chronic pregnancy kidney the blood pressure is markedly higher (170-80) and the work of the heart is increased. Yet by proper treatment the blood pressure can be kept within moderate limits. The occurrence of eclampsia is dangerous because it severely strains the heart. The highest demands are put on the heart by the so-called chronic nephritis in graviditate. It is impossible to distinguish the latter from the chronic pregnancy kidney. The high and persistent increase in blood pressure up to 150 or more which is uninfluenced by treatment, explains why occasionally well heart, and almost always a diseased heart, succumbs. The only help lies in removing the increased demands placed upon the heart by interrupting the pregnancy.

Jaschke: Kidney and Pregnancy (Niere u. Schwangerschaft) *Deutsche Gesellschaft f. Gynäk. Halle*, 93, May

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

The relationship between high blood pressure and low urine and chlorine elimination, suggested by Zangemeister is very misleading. In the first place it is more complicated than he believes, and secondly the decrease of the amount of urine and chlorides is

d to the increased perspiration. Polyuria is just as possible with high blood-pressure as oliguria. The amount of chloride eliminated is dependent on the amount of consumption and the extent of cutaneous loss. In the kidney of pregnancy he explains on the ground of increased capacity of excretion.

Schmidt: Heart and Kidney Affection During Pregnancy. *Herz und Nierenkrankheiten in der Schwangerschaft*. (Deutsch. Gesell. f. Gynäk. Halle, 1913.)

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk. The author states the value of the urinary findings in renal diseases is still overrated. The extent of the morbid and the excretion of the urea as by no means parallel the degree of defect. There is also no initial stenosis although the affection occupies somewhat individual position. Of the more important are the size of the heart pulse changes prolonged excretion of the urea and lessened and by all functional labor and respiration of the antra muscle. A very break compensatory has the same signs in entering pregnancy. The latter dependent on the use of the blood and by corresponds rest in bed and digitalis. Myocarditis although suggested by pregnancy is no mean ailment. Indication for the previous history. The author also makes stress on slight rhythm and tachycardia which is not dangerous. Between these remain a suspicion of myocardial form of myocarditis is rather common. The effect is reduced but not. The previous whether the renal work is if given by the normal pregnant pregnancy both in the same but. Schmidt also points out that let it regard the amount of pregnancy but that. Let it point out the renal work of the organ is reduced in quiet (quiet).

Dahlm: Risk not be laid low in regard to the most. A but a myometrium during the half of pregnancy until now in nephritis does not at all indicate a rupture of the pregnancy. The author does not agree that hypertrophy of the migration of the urethra with the blood wall but believes that it is a result of the blood. The supposed lymphatics but even the blood and the pelvis of the kidney are still problematical. Culo infection for the blood may be a pathological cardiac or renal disease but only rarely. According to him the infection of the pelvis is probably arises from the genital organs.

Boeckel: Kidney Disease and Pregnancy. *Nierenkrankheiten und Schwangerschaft*. (Deutsche Gesellschaft f. Gynäk. Halle, 1913.)

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk.

The author desires to make three points. First that the kidney insufficiency in pregnancy is becoming more and more oncoming especially when only

the urinary findings are considered. At best, the urinary findings are only relative. The condition of heart and blood pressure are the deciding point. Second a tuberculous kidney should be removed during pregnancy as well as at any other time. The pregnancy will not be compromised on that account. Third the old theory that serious additional strains would be thrown on the kidney is shattered by recent experience. Women with one healthy kidney at all pregnancy surprisingly well. Third, the author believes that the psychosis of pregnancy is merely a recurrence of a psychosis which originally occurred during childhood. This is based on the fact that children who remain in the urine for many years after attack of pyelitis in spite of treatment. If divides the combined treatment the medical and surgical as well as the surgical with repeated pyelitis. For the treatment of pyelitis of pregnancy the author is convinced that first a thorough trial of the internal treatment a therapeutic success is indicated to prevent severe injury to the kidney.

Fischer: Kidney Function in Pregnancy and in the Terminal of Pregnancy. (Über Nierenfunktion in der Schwangerschaft und in der Schwangerschaftstermination). (Deutsch. Gesell. f. Gynäk. Halle, 1913.)

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk.

The author conducted functional tests of the kidney on numerous cases of pregnancy. He made a detailed analysis of all cases of terminations. From the weak kidney pregnancy of many months of pregnancy is not rare. One day, he notes little more rapidly than the normal. The normal is not parallel the retention of nitrogen. The blood contains a great amount of nitrogen. The immediate appearance of edema shows a demand salt free diet. A pure milk diet is not ideal. The too poor diet contains too much nitrogen. Such cases are excluded only by functional tests.

In eclampsia the excretion of nitrogen is prolonged and protein nitrogenous products are markedly increased. This increase however does not show itself as the excretion of nitrogen increases in concentration but increase the quantity of nitrogen. A woman as her eclampsia cases the kidney resumes its normal function immediately therefore due to kidney can hardly be taken to exist. Eclampsia is not a must part analogous to eclampsia but it inhibits the function of the kidney. The part for the function of the kidney. The persisting hyperpermeability of the vessels during the puerperium he speaks for himself. The total nitrogen of the blood is not increased in eclampsia. Therefore there can be no accumulation of globules in the blood. The nitrogen of end products however is moderately increased. The determination of the cause of this retention is probably clear the matter still further

Eckelt: The Function of the Kidney of Pregnancy and the Eclamptic Kidney (Über die Funktion der Sch. angereichert- und eklampsiere). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. 13.)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Having performed experiments in metabolism the author comes to the following conclusions. The function of the kidney of healthy pregnant women in regard to water, sodium-chloride and sodium-ion is equal to that of non-pregnant women. These are interfered with in the kidney of pregnancy. It is not possible to predict eclampsia on these grounds before the pains begin. The same holds good for blood-pressure and percent of albumen. After the pains of labor have begun, decrease in the sodium-chloride seems to indicate eclampsia. A decreasing titer and high albumen do not mark the prognosis of an eclampsia onse. Nor is the prognosis of kidney of pregnancy made worse by decrease in the titer and increase in the amount of albumen.

The kidney of pregnancy and the eclamptic kidney has the identical anomaly in function. Comparative studies of the blood-pressure, oedema and disturbance of the function of the kidney lead the author to the conclusion that the kidney of pregnancy is the expression of direct parenchymatous disturbance brought about by toxin in the circulation.

Holzbock: The Kidney in Pregnancy and Nephritis in Graviditas (Über Sch. angereicht- und Nephritis in graviditas). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. 13.)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Holzbock thinks the term kidney of pregnancy is anatomically unjustifiable, for degenerative and inflammatory processes blend together in the anatomical as well as in the clinical part. He suggests careful study of each case, in order to determine whether insufficiency of the kidney exists. Schlayer's function test is of great diagnostic aid. It often reveals masked nephritis. Chronic nephritis may develop from kidney of pregnancy. These investigations have no bearing on eclampsia, and the author intimates that the latter be treated differently than nephritis.

31 year: Pyelitis and Its Relation to Pregnancy (Über Pyelitis und ihre Beziehungen zur Schwangerschaft). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. 13.)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Pregnancy is not the cause of pyelitis, but predisposes to it. Many cases of pyelitis are descending infections. Organisms enter the pelvis by the blood or lymph stream and by pus foci near by. The recently described lymphatic connection between the colon and the right pelvis probably accounts for the occurrence of infection by way of the lymph stream and explains the greater frequency of right-sided pyelitis. Although normal bowel flora do not

penetrate the normal bowel wall, abdominal flux may very easily penetrate a changed bowel wall. Pyelitis is frequently preceded by acute gastric disturbances with hanged intestinal flux. The serological behavior also indicates an increased virulence of the bacterial organisms. Appendicitis deserves particular consideration in the etiology of pyelitis. Pyelitis frequently leads to early interruption of pregnancy. The child, although term, is frequently undeveloped. An improvement occurs usually with the onset of the puerperium, although there are numerous exceptions, and genital infection may follow. During pregnancy pyelitis must be differentiated, especially from appendicitis, occasionally from peritonitis, puerperal infection due to criminal abortion, acute respiratory diseases, and genital hemorrhages.

Opitz: Pyelitis Gravidarum (Nene Beiträge zur Pyelitis Gravidarum). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. 13.)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author reports on the systematic examinations of bladder and kidney urine in 160 cases of pregnant women. Bacteria were found in almost 75% of the cases but a pyuria was present in only 15% of them. Bacteria are the organism most frequently found. Besides this most extraordinary varieties of organisms were isolated, even the yeast fungus being present in some cases. In the 60 women, twelve had definite pyelitis. In addition there were four cases of pyelitis observed during the early months of pregnancy. As there were cases in which the kidney urine was sterile, the presence of pyelitis due to the usual pyelitis organisms, the author concludes that an ascending infection of the pelvis can hardly be questioned. The author does not deny the possibility of lymphatic infection of the renal pelvis but does not believe it occurs commonly. In view of the fact that cystoscopic examinations have proven that ascending infection of the ureter occurs much more readily during pregnancy than at other times.

Kroemer: Etiology and Treatment of Pyelitis Gravidarum (Zur Ätiologie und Behandlung der Pyelitis Gravidarum). *Deutsche Gesellschaft f. Gynäk. Halle*, 9. 3. 13.)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Kroemer, from thirty-eight cases of pyelitis, thirty-one of which were pregnant, arrives at the following conclusions: (1) Pyelitis in numerous instances is long drawn out disease with tendency to recurrence. It frequently follows infectious diseases, gastro-enteritis, colitis, thrombophlebitis, polyarthritides and angina. (2) Pregnancy predisposes to recurrence as it may cause obstruction of the ureter manifesting itself first as a hydro-ureter and pyelocystitis with bacteriuria. (3) Pelvic irrigations and drainages are to be considered only as symptomatic treatment, which must be augmented by vaccine therapy and prolonged observation. (4) A continuation of one-sided pyuria after the puerperium must

be considered as due to manifest kidney lesion, and surgical treatment would seem advisable. (3) The possibility of tuberculous affection of the kidney pelvis must be considered in each case. (4) Congenital anomalies of the ureters and kidneys, floating kidney or structure of the ureter due to obliterating urethritis, must be considered.

Weibel: Serological and Clinical Phenomena in the Pyelitis of Pregnancy. I. Antibodies in the Maternal and Fetal Blood. I. Cases of Pyelitis of Pregnancy (Serologische und Klinische Über Schwangerschafts-Pyelitis). Über Antikörper im mütterlichen und fötalen Blute bei Schwangerschafts-Pyelitis. *Arch f Gynäk.* 9 3, xlix, 245. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Bacteriological investigations of the blood in cases of pyelitis, even in highly febrile cases, have always given negative results. The agglutination reaction in positive colon bacillus infection has been almost always negative. Weibel, therefore, demonstrated in eight cases of colon pyelitis of pregnancy the presence of haptes of the third order (Bordet-Gengou antibodies of the amboceptor type) using the complement fixation method. In all cases except one there were definite antibodies against the autogenous bacillus, in several cases antibodies in lesser quantity against foreign strains, but never any antibodies against any strain in normal serum. The investigations regarding bacilli found in the bowel were not uniform. However, in cases not infected no antibodies were produced against their own strain of bacilli in the bowel, and no immunity to their own flora. In all cases in which antibodies could be demonstrated in the mother they were present also in the child born of that mother, the sera of both usually being of the same type. Antibodies were found also in the amniotic fluid, but were much weaker in action. With the receding of the infection, drop in the immunity also occurs. In the serum of the infant the antibodies disappeared sometimes very quickly, at other times less quickly, sign of passive immunity.

Weibel reports one case of particular interest, since spontaneous recovery occurred during pregnancy without any treatment characterized by disappearance of the antibodies from the blood with sterile urine in the pelvis of the kidney and bladder at the time of labor. **Nirmann.**

Novak and Strisover: Concerning Peculiar Form of Glycosuria in Pregnancy and Its Relation to Diabetes Mellitus. (Über eine besondere Form von Glykosurie in der Gravidität und ihre Beziehungen zum echten Diabetes). *Deutsche Gesellschaft f. Gynäk.* 9 3, lii, 7. By Surg., Gynec. & Obst.

The examination of fourteen cases of spontaneous glycosuria in pregnancy conducted under known diets, led the authors to conclude that the glycosuria of pregnancy is usually entirely of renal origin. Sugar metabolism may be disturbed in individual cases, but overensitiveness of the kidneys for sugar is usually to blame. In the last cases combination of the two was noted. Real diabetes gives very

poor prognosis: two cases in the last year in Wertheim a clinic died in coma. The normal content of sugar in the blood, failure of the clinical attributes of diabetes, and the benign course distinguish the two forms. Careful clinical observation is necessary to distinguish the combined form. Hydranmios and intra-uterine foetal death are characteristics of real diabetes.

JAMES R. MILLER.

Shoemaker: Acute Membranous Vaginitis. I. Pregnancy Due to Enterococcus. *Proc. M. J.* 9 3, xvi, 701. By Surg., Gynec. & Obst.

Shoemaker cites two cases in which the enterococcus was the exciting cause of severe vaginitis which began in the eighth month of pregnancy.

The symptoms were an extremely painful condition of the vulva and vagina with severe burning and itching. The patient was unable to sleep and had to sit in chair day and night. The vulva was swollen and the skin and mucous membranes reddened. A thick yellow latex discharge was present with non-adherent yellow masses in the vagina the size of spoon bowl. The organisms in the first case were diplococci, or enterococci, while in the second case the streptococci, staphylococci, *Vibrio albacinus* and fungus of thrush were associated.

Treatment consisted of permanganate of potassium was used as daily vaginal douche, while the vulva and surfaces of the vagina were painted daily with a fifteen per cent solution of argyrol. Both cases recovered within three weeks.

EDGAR CARY.

Sellheim: A Case of Rupture of the Uterus During Pregnancy. (Ein Fall von Uterusrissung in der Schwangerschaft). *Deutsche Gesellschaft f. Gynäk.* Halle, 9 3, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The tearing of the uterine wall in a 4 year old woman, secundipara, must have begun in the first two months of pregnancy for at that time she had had severe abdominal pain and internal hemorrhage. The movements of the child were no longer felt after the seventh month, and five weeks later menstruation set in. The menses occurred every four weeks thereafter.

Examination of the uterus excludes ectopic pregnancy for the old scar was plainly visible in the fundus. It was probably a case of premature separation of the foetal wall where the placenta had been located, thus allowing the yam to slip out into the peritoneal cavity. The placenta may have functioned little longer but it and the yam soon died. The uterine wall repaired itself and the menstrual flow became re-established.

Bannister: A Case of Extensive Rupture of the Utero-Vaginal Junction with Escape of the Placenta into the Peritoneal Cavity. *Proc. Roy. Soc. Med.* 9 3, 4, Obst. & Gynec. Sect., 37. By Surg., Gynec. & Obst.

The patient, 35 years of age and pregnant for the tenth time, had had nine forceps deliveries. After

she had been in the second stage of labor with right occipito-posterior presentation, the physician applied forceps, but could not deliver the still-born child. Two hours later as the placenta had not been delivered, and as slight hemorrhage was persisting, manual delivery of the secundines was attempted but the hand passed easily into the abdominal cavity. The cervix was lacerated and there was a large tear in the posterior vaginal vault. On opening the abdomen the peritoneal cavity was filled with blood and the placenta lay in front of the left kidney. The rent extended laterally over both utero-sacral folds into the pararectal pouch on either side while below it reached the lowest limit of the pouch of Douglas.

As the case had been delivered under insanitary conditions in the home, total hysterectomy was performed and both vaginal and abdominal drainage was used. While the etiology of this rupture is obscure it would appear to have been spontaneous as the physician used only very slight force in turning the occiput anteriorly. C. D. HOSKINS.

Samplin. Pregnancy and Labor Complicated by Ovarian Cysts (Zur Frage der Schwangerschaft und Geburtskomplikation durch Ovarialzysten mit Beschreibung eines Falles von ruptur spontanen cystarum ovarii sub partu.) *Med. Rundschau* 93, IV 334.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

According to the statistics of the Berlin Gynecological Clinic five cases of ovarian cyst occurred in 753 labors according to the University Lying-in Hospital of St. Petersburg in cysts 803 labors. Fehling says these are caused by displacement and flexion in the ovaria, and according to the writer another cause is the frequent interruption of pregnancy by ovarian tumors. According to Kerron, rupture occurs in 4 per cent of cases of pregnancy, according to Williams in 3.4 per cent of cases of pregnancy and in 8 per cent of cases of labor. The causes of rupture are suppuration, adhesion of too pressure by the enlarging uterus, softening of the cyst wall, trauma, abortion, forceps, and at times the action of labor pains. The prognosis depends on the nature of the cyst contents, recovery being the rule where this is serous, and less if it is not, peritonitis and death.

As to whether an operation should be performed during pregnancy or during labor the author inclines toward the latter as the danger of toxic secondary hemorrhages is too great during the course of pregnancy. It is only then indicated if dense adhesions exist between tumor and uterus. If the pelvis is markedly contracted, the method of choice is the abdominal or vaginal radical operation. Paracentesis of the cyst and the induction of abortion might also be considered. Abdominal ovariectomy during pregnancy has a mortality of 35 per cent, and causes an interruption of pregnancy in 61 per cent. The best results, according to Delme, are obtained during the third or fourth

month. The vaginal operation (Dührssen) has a slightly lower maternal mortality than the abdominal operation, however the number of interrupted pregnancies and the sacrifice of children is much larger. It is indicated in small movable cysts without adhesions. A list of literary references is given.

KARSTEN.

Beck. Multiple Sclerosis, Pregnancy and Labor (Multiple Sklerose Schwangerschaft und Geburt.) *Deutsche Zeitsch. f. Nervenhk.,* 93, XI 1, 7.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

Of the forty female multiple sclerosis patients treated in Tübingen, sixteen, or 4 per cent, attributed the onset of their disease to pregnancy and labor. Eight cases the disease commenced during pregnancy in four immediately following the birth of the child, and in four independently of pregnancy and labor. In seven cases the disease became aggravated during pregnancy and in seven shortly after delivery. In one case the onset occurred during the first pregnancy, became aggravated in all five succeeding pregnancies and always improved shortly after delivery. In a second case the sclerosis became so aggravated during pregnancy that therapeutic abortion was induced followed by immediate improvement subjectively and objectively.

The interruption of pregnancy did not act as a trauma in these cases, contrary to the view of Edinger, hence only the strain incident to labor can be taken into consideration as the exciting factor in the onset or in the course of the disease. On the contrary it appears that pregnancy considered by Oppenfeld as an exogenous etiological factor probably is of much greater significance than labor and the puerperium. Practically the prevention or interruption of pregnancy may be required in cases of multiple sclerosis, but definite rules at present must be formulated.

ELMORE.

Courvaloir. Surgical Treatment of Hemorrhages Due to Separation of the Normally and Abnormally Situated Placentae (Traitement chirurgical des hémorragies par décollement du placenta normalement et vicieusement inséré.) *J. d. gynec.* 93, XII, 21.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author presents a résumé of the teachings and methods of the French school. Under surgical treatment the author indicates hysterectomy and hysterotomy. In severe hemorrhages due to low implantation of the placenta the author prefers wide opening of the membranes, insertion of a Champetier bag or Braxton Hicks version to surgical procedures. He gives statistics from numerous institutions of France. After subtracting the cases brought in in extremis, a 4 per cent maternal mortality is recorded. The principal danger is not hemorrhage, but sepsis. The high fetal mortality is due to prematurity. In the cases which offer hindrance to immediate delivery as rigid cervix and infection, surgical treatment must be considered.

Hysterectomy is preferred in infected or suspicious cases otherwise transperitoneal or Cesarean section. Vaginal and suprapubic section are not employed.

With normally implanted placenta severe hemorrhages are rare. The author emphasizes the picture of retro-placental apoplexy. In these cases also he prefers the obstetrical methods of delivery if the os is soft and dilatable. Otherwise the surgical methods, hysterectomy or transperitoneal section, are better than the former especially in cases of bloody infiltration of the uterine walls. Vaginal section is not recommended. *Scrimm*

McDonald and Krieger: Bilateral and Multiple Ectopic Pregnancy. *J Am Med Ass.* 1934, 766. By Surg. Gyne. & Obst.

Bilateral and multiple ectopic pregnancies are classified as follows:

(1) Bilateral ectopic pregnancy. (2) Simultaneous (3) different gestations (4) no ovarian, one tubal.

(5) Tubal pregnancy. (6) Simultaneous (7) different gestations on one side and one fetus the other.

It is difficult always to discover whether cases of double ectopic pregnancy are true twin pregnancies. Many cases have been reported as such in pregnancies, so cases in which one gestation has been retained in the tube and another has been deposited in the same tube. Also cases have been reported in which the first as retained, lithopedion and second tubal pregnancy occurred in the same tube. Several other combinations also have been seen and it is therefore difficult to state whether the fetuses in tubal pregnancies are really twins and if the same gestation is only repeated tubal pregnancies in which one conception has followed another in the same tube. Thirty-nine cases have been collected from the literature in which the evidence of tubal pregnancy was reasonable sure that is, the fetuses were either the same size and have the same placenta or the same record of more than one synchysis. The latter is not very accurate evidence but it is the best available. The authors then report the cases of their own.

In the first case the patient, as 34 years old, had been suffering more or less for 10 months previous to operation. She had had several hemorrhages but the last one was the most severe. On opening the abdomen large quantities of partly coagulated and fluid blood were found. The uterus, ovaries and blood clot filled the pelvis, and it was difficult to demonstrate the anatomical relations. The uterus was enlarged. The tumor masses on both sides and both ovaries were removed. Five days after the operation the uterus expelled the remains of the placental tissue and fetus. One of the ovaries contained corpus luteum. Both tubes were greatly enlarged and dilated. brownish-red material. Connected with each tube was a fetus. One fetus was preserved while the

other seemed to have undergone an arrest of growth. In the one farthest advanced fetus, the external ear eyes and feet could be made out. In the other the lower limbs were well formed but the trunk and head as enclosed in connective tissue capsule. The second patient was 35 years old. She did not suffer great deal. She had had continuous flow of brownish watery fluid since the last menstrual period. At operation the abdomen was found to contain only a small amount of free, blood-stained turbid fluid. The left tube was bound down by new formed adhesions beneath the sigmoid. It was the seat of ectopic pregnancy. The right ovary was macerated and lay behind the uterus and was bound down by adhesions in the pelvis. A second ectopic pregnancy in the uterus as found there. The most unusual diagnosis in this case was as follows: Double ectopic pregnancy. Chronic pelvic peritonitis. Decidual cells and chorionic villi shown by sections from the walls of the sac of each tube. Necrosis of the decidual tissue and thrombosis.

EDWARD L. CORNELL

Albaum: The Diagnosis and Treatment of Extra Uterine Pregnancy and Report of Over 100 Cases on Operative Cases (Die Diagnose und Therapie der Extrauterin-gravidität, nach 100 Operationen über ein Leiden, das seine Ursache in der Ektopyen hat). *Therap. u. Diagn.* 1934, 9, 1.

B. Zentralbl. f. d. Ges. Gynäk. Geburtsh. u. Gynäk.

The author reports 45 cases treated during the past five years. He discusses the etiology in regard to inflammation, age, number of pregnancies and one child sterility. For differential diagnosis he advises puncture of the uterus. Fowler's position, the uterine test and leukocyte count. He employs two punctures of the uterus in cases of hematoma. He considers the danger of the procedure as insignificant. One hundred and eleven women are brought in collapse frequently under mistaking diagnosis.

The treatment of extra-uterine pregnancy is absolutely operative even in severe collapse. Albaum operates by the laparotomy route and employs the vaginal incision only in support of the hematoma. The abdominal cavity is closed unless coming of blood necessitates laparotomy. The free blood in the abdomen is not removed during the laparotomy but all patients are placed in the Fowler position and it is removed a few days later by vaginal incision or puncture. Among the 45 cases the author had mortality of 0.5 per cent. The last 28 cases, no death occurred. Nothing new is mentioned in regard to after-treatment. The remaining tube is not removed unless found diseased.

F. W. W. W.

McCann: A Primary Ovarian Pregnancy at the Fourth Month. *Proc. Roy. Soc. Med.*, 1934, 27, 4. Obst. & Gynec. Sect. 20. By Surg. Gyne. & Obst.

In order to prove that pregnancy when advanced is ovarian it is necessary (1) that the

corresponding fallopian tube intact () that the ovary the same side be intact (3) that the fetal sac be connected with the uterus by the utero-ovarian ligament (4) that the tumor mass be discovered in several portions of the sac wall. The macroscopical appearance and natural relations of this specimen seemed to make it beyond doubt that this was true of a pregnancy.

The patient, 3 years old, had no child 5 years old. Her health good. Menstruation was regular until 1 year ago when her periods ceased. Soon began to have severe attacks of pain in the left lower abdomen. On May 20, 1902, she had large cystic swelling in the left lower quadrant extending as high as the umbilicus. On June the abdomen opened. The tumor as found to be ovarian, but not connected with the uterus by the utero-ovarian ligament and to the broad ligament by the mesometrium. The left fallopian tube was quite free from the tumor and normal appearance. The left side of the mass was cystic, the right as the peritoneum. The right preterogastric.

The specimen proved to be multilocular ovarian cyst consisting of two loculi. A septum separated these loculi from third which contained a fetus of about the fourth month with placenta. The upper surface of the loculi was covered with layer of recent blood clot. The surface seen at the back of the specimen running between the loculi and the fetal sac represented the line of division of the entire tumor. The utero-ovarian ligament as directly connected with the fetal sac. The fetal sac consisted of an outer fibrous layer external to the amnion lining but here in two positions with the cystic portion of the tumor ovarian tissue was seen. The microscopical sections. The relationship of the pedicle of the tumor and the fact that the utero-ovarian ligament as directly connected with the fetal sac proved the specimen to be an indoubted example of ovarian pregnancy. A functionally active portion of the left ovary must have become impregnated, and the growing ovum evidently formed as for itself in this situation. The specimen further demonstrated the possibility that ovarian pregnancy may occur in an ovary already the seat of cystic tumor. C. D. HOLLAND.

Wilson. A Contribution to the Study of Eclampsia as a Transmissa of Possible Mammary Origin. *Am. J. Obst. N.Y.* 1903, 1904, 1905.
By Surg. Gynec. & Obst.

In this article Wilson carefully reviews the knowledge of parturient paresthesia of cattle and reports the cases of eclampsia in women that have had treatment directed to the breasts. The assumption that the breasts are the seat of the etiological toxine. He compares the points of similarity between the bovine and human diseases, and concludes his very interesting article as follows:

Parturient paresthesia is a disease of the parturient

cow undoubtedly due to a powerful toxine in the blood having its origin in some perversion of the mammary secretion.

The mammary theory of eclampsia is based almost entirely on the pathological and clinical similarity of the two diseases.

3. There are however the following important differences:

a. Parturient paresthesia rarely attacks primiparous animals, while primiparity markedly predisposes to eclampsia.

b. Parturient paresthesia occurs almost entirely post partum eclampsia also no especial predilection for this period.

c. Parturient paresthesia increases in frequency in direct ratio with increased power in milk production. No such finding has been noted in eclampsia.

d. Sugar is an almost constant ingredient of the urine of parturient paresthesia but is rarely found in eclamptic urine.

4. The mammary theory of eclampsia is probably merely specious. At the same time it deserves careful and thorough investigation and offers an attractive field for study. At least it may prove to be the explanation of the occurrence of a small proportion of cases.

5. Such an investigation should include:
a. A careful pathological and clinical study of parturient paresthesia.

b. The determination of the toxic or non-toxic character of the colostrum of eclamptic.

c. The tentative trial, in properly selected cases of eclampsia, of the treatment by air or oxygen injection of the breasts, which at least has the undoubted advantage of being harmless.

N. SPENCER HENRY

Engelmann and Eilers. The Viscosity of the Blood in Eclampsia and Other Diseases of the Female Organism (Über das Verhalten der Blutviskosität bei der Eklampsie sowie bei anderen Erkrankungen und Veränderungen des weiblichen Körpers). *Gynäk. Rundschau* 1903, VII, 33.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The determination of the viscosity of the blood was carried out with the apparatus of Hagen. According to Hagen, the viscosity of the blood of healthy non-pregnant women is 4, and according to Oelckecker 4.35. In pregnancy Engelmann and Eilers found it to average 3.66 between the seventh and tenth months. It approaches the normal about ten days after labor. In eleven cases of eclampsia in which no treatment had been instituted, the average was 5.4 per cent increase.

A venesection of 500 ccm reduced it 7 per cent. The venesection as still more effective if followed by an infusion of 15 L of Ringer's solution which causes drop of 33 per cent. After infusion alone the viscosity decreased 5 per cent. The authors at died the viscosity also in other diseases. In severe hemorrhages due to abortion, myomata and tubal pregnancy the viscosity was decreased most decidedly.

In prolonged hemorrhage due to fibroids (26) The usual loss of blood during labor had no influence. In six cases of placenta previa the viscosity was reduced to 3.73 only the newborn child, however showed an increase to 5.8. It is of value in the differential diagnosis of adnexal inflammation, an increase to 5.45 being observed in ten cases, whereas in ten cases of extra-uterine pregnancy it was always reduced to 3.73. *Brockmeyer*

Lichtenstein. Further Experience with the Expectant Treatment of Eclampsia (Weiteres Erfahrung mit der abwartenden Eklampsiebehandlung). *Deutsche Gesellschaft f. Gynäk. Halle, 9. 3. 1914.*
By *Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.*

The author has again treated 91 cases by making venesection and using Stroganoff's treatment. The maternal mortality was 5.3 per cent the infant mortality 37.3 per cent in tot. and 3.6 per cent of viable infant. Of the cases before labor 4 per cent were cured without interrupting the pregnancy. Seventy-four consecutive cases of eclampsia were cured without death in 6 months.

If the cases are arranged according to the scheme of Freund and Freund then the expectant treatment has a higher mortality than the active treatment this merely signifies, however, that early treatment is better than late. It does not decide which treatment is the more feasible. The total number of deaths gives the best criterion as to the more desirable method to pursue. In the expectant treatment the death-rate is only 36 to 35 and 4 per cent of the cases are cured before delivery. In other words, there is no indication for active treatment in eclampsia and it is to be abandoned in preference to the expectant.

Kroemer. Disturbance of Kidney Function in Eclampsia (Störung der Nierenfunktion bei Eklampsie). *Deutsche Gesellschaft f. Gynäk. Halle, 9. 3. 1914.*

By *Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.*

Kroemer reports on systematic examinations of urine in eclampsia with prodromal symptoms in pregnancy labor and puerperium. Excluding the rare case without albumin, there is found a definite large amount of albumin and casts and oliguria with high specific gravity and retention of chlorides. The latter is present in every case with azotemia. The plotting of curve makes the prognosis much easier and offers reliable hints for the treatment. A sudden dropping of the curve shows threatened eclampsia as well as recurrence during the puerperium. By carefully watching this drop, Kroemer was able to combat the disturbances during the puerperium by means of venesection and the administration of larger quantities of water. The typical cases without albumin and with normal NCl excretion are the exception they offer no prognosis and are treated by the Stroganoff method of treatment. Functional tests of eclamptic kidneys with phenolsulphobthalein confirmed the fact that

there was severe injury of the kidneys, since only 20 to 40 per cent of the rise substance was excreted in first 4 hours to 5 per cent. In healthy pregnant women the quantity runs from 60 to 75 per cent. This test may possibly make up the link in the determining functional activity of the kidneys. Investigations regarding the toxicity of the urine of eclamptics according to the methods of Franz and Esch resulted negatively. The liquor cerebrospinalis was absolutely non-toxic, the serum unreliable.

Necke. The Treatment of Eclampsia (Eklampsie-therapie). *Deutsche Gesellschaft f. Gynäk. Halle, 9. 3. 1914.*

By *Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.*

Opinions differ widely in regard to the treatment of eclampsia. On the one hand is Freund, on the other Lichtenstein. The author himself had seventy-nine cases of eclampsia, with mortality rate of 3.8 per cent. His slogan is to deliver severe cases immediately less severe cases as soon as possible. He considers those which secrete small amount of urine, have prolonged drowsiness and small rapid pulse, as severe. If attacks no prognostic importance to the quantity of albumin and to the number of convulsions. One case of severest eclampsia was delivered during the eighth month by means of vaginal Caesarean section and recovered the convulsions ceased and the auria improved. Definite conclusions should not be drawn from such case however as milder cases ended fatally. One point, however he desires to emphasize in regard to operative delivery namely the uterus is liberated from the dangerous muscular tension and the reflex irritation it induces the pressure is removed from the abdominal vessels, especially those of the kidney, the diaphragm is allowed to recede, lungs and heart are not impaired, etc. The delivery therefore accomplishes the removal of great number of complicating conditions which alone may cause death, even without eclampsia. Necke considers the operative treatment far superior to venesection.

Freund. The Treatment of Eclampsia (Zur Eklampsie-therapie). *Deutsche Gesellschaft f. Gynäk. Halle, 9. 3. 1914.*

By *Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.*

Between October 6 and April, 1914 46 cases of eclampsia were treated expectantly (venesection and narcotics) at the hpt. Charité in Leipzig. Four women died of eclampsia four recovered during pregnancy. One severe case of eclampsia during the sixth month of pregnancy suddenly became worse during 48 hours of expectant treatment and the uterus was immediately evacuated by vaginal Caesarean section. The fetal mortality has been considerably by this method especially in eclampsia during pregnancy and early stages of labor. It was 4.9 per cent compared to 7 per cent in early delivery excluding cases of puerperal eclampsia. Therefore it is still undecided which of

The first of these is the fact that the
 report is not a true report of the
 facts. It is a report of the facts
 as they appear to the writer. It is
 a report of the facts as they appear
 to the writer. It is a report of the
 facts as they appear to the writer.

1001 The Observational Significance of the
Hypothesis of the

[illegible][illegible]

I have the fifth relatively small amount
of the first set which I have seen
and given me batteries of symptoms of

[illegible]

1. Threats to the validity of the study
 2. Internal validity
 3. External validity
 4. Construct validity
 5. Reliability
 6. Measurement validity
 7. Sampling validity
 8. Response validity
 9. Non-response bias
 10. Common method variance
 11. Common method bias
 12. Common method bias
 13. Common method bias
 14. Common method bias
 15. Common method bias
 16. Common method bias
 17. Common method bias
 18. Common method bias
 19. Common method bias
 20. Common method bias
 21. Common method bias
 22. Common method bias
 23. Common method bias
 24. Common method bias
 25. Common method bias
 26. Common method bias
 27. Common method bias
 28. Common method bias
 29. Common method bias
 30. Common method bias
 31. Common method bias
 32. Common method bias
 33. Common method bias
 34. Common method bias
 35. Common method bias
 36. Common method bias
 37. Common method bias
 38. Common method bias
 39. Common method bias
 40. Common method bias
 41. Common method bias
 42. Common method bias
 43. Common method bias
 44. Common method bias
 45. Common method bias
 46. Common method bias
 47. Common method bias
 48. Common method bias
 49. Common method bias
 50. Common method bias
 51. Common method bias
 52. Common method bias
 53. Common method bias
 54. Common method bias
 55. Common method bias
 56. Common method bias
 57. Common method bias
 58. Common method bias
 59. Common method bias
 60. Common method bias
 61. Common method bias
 62. Common method bias
 63. Common method bias
 64. Common method bias
 65. Common method bias
 66. Common method bias
 67. Common method bias
 68. Common method bias
 69. Common method bias
 70. Common method bias
 71. Common method bias
 72. Common method bias
 73. Common method bias
 74. Common method bias
 75. Common method bias
 76. Common method bias
 77. Common method bias
 78. Common method bias
 79. Common method bias
 80. Common method bias
 81. Common method bias
 82. Common method bias
 83. Common method bias
 84. Common method bias
 85. Common method bias
 86. Common method bias
 87. Common method bias
 88. Common method bias
 89. Common method bias
 90. Common method bias
 91. Common method bias
 92. Common method bias
 93. Common method bias
 94. Common method bias
 95. Common method bias
 96. Common method bias
 97. Common method bias
 98. Common method bias
 99. Common method bias
 100. Common method bias

[illegible]

For rich in albumin milk, yellow stripes
containing (d) on surface of seed. No other
cannot be dispersed entirely. A section of
other has followed intraducted on each test

the loss of calori in incident thereto. The success obtained with the modern method of treatment of tetany does not necessitate the prevention of conception or the interruption of pregnancy. JAMNA.

LABOR AND ITS COMPLICATIONS

Ternaghi: Fever During Delivery. (Obstetric Indications for Its Treatment. (Febbre in tra aglio. Criteri che guidano la condotta del Fostetico.) *Arch. chir.* 9, 3, 337, '20.)

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author reports the case of primipara labor normal in every respect except that her temperature was 39 C and the child was presented by the breech. After child delivery was effected by aid of the forceps and breech hook. The pulse varied from 60 to 100 and the fever disappeared a few hours after delivery.

The author considers the case one of fever due to intoxication. As a differential point between infection and intoxication, he places great stress upon the pulse. A temperature of 38° he considers physiological on account of the uterine activity. Temperature before rupture of the membranes is rare. If it drops immediately after the case is probably one of intoxication; otherwise it must be considered as an infection, especially if there has been operative interference under uncertain asepsis. Intoxication fever is indication of rupture of the membranes and spontaneous delivery whereas in infection rapid delivery is indicated. Injuries are to be avoided as are also incision of the cervix and episiotomy. Versio after the membranes have ruptured is contra-indicated on account of danger of rupture of the uterus. The author prefers perforation, even of the living child. High forceps is to be avoided. The infant dies frequently during the first few days of umbilical infection or pneumonia. SCSOV.

Kumlin: Pelvic Outlet Tumors. Hindrance in Child Birth. (Über Beckenausgangstumoren als Geburtshindernisse.) *Monatsschr. f. Gyn.* 9, 3, 343.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

In the two reported cases spontaneous delivery was impossible, due to tumor in the birth-canal.

In the first case the diagnosis of carcinoma of the ovary was made. The tumor was located in the paravaginal tissue in the wall between the vagina and rectum. The clinical and microscopical examination showed it to be due to congenital anomaly of the left Müllerian duct in its upper third. The ovary remains in its original position until the tumor very large. The carcinoma must likely began here and after it had grown in size it slipped down into the pelvis. The tumor was removed per rectum and the child delivered with forceps.

Case proved to be submucous fibroid of the posterior lip of the os uteri. The tumor was removed per vaginam and this child also was delivered with forceps. KAMADA.

Ziegler: What Can Be Accomplished with the Method of Deventer Müller for the Delivery of the Shoulders. (Was leistet die Deventer Müller'sche Entbindung des Schultergürtels.) *Beitr. z. Geburtsh. Gynäk.* 9, 3, 18, '20.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The advantages of the Deventer Müller method for the delivery of the shoulders are simplicity and rapidity of execution even for the inexperienced, and less danger of infection and injury to mother and child. The disadvantages consist in danger of severe injury to cervical spine naturally caused only by carelessness or by forced application of the maneuver in severe degrees. The greatest importance lies not in the application of the method for the delivery of the arms, but of the shoulders. If the arms are flexed they are delivered simultaneously with the shoulders. If they are extended the upper arm becomes so easily creasable that high traction on them will deliver them. Only when they lie in the nape of the neck may delivery by this method become very difficult or impossible. Von Herz considers the expression of the child by an assistant as essential to retain the flexed position of the arms and head.

The author is able to report 30 cases to date in which this method of delivery was used at the Basel clinic, with only 5 per cent of fractures as compared to 8 per cent in 5 cases delivered by the usual methods. Detailed statistics of maternal mortality and morbidity as well as fetal mortality cannot be given at the present time but the figures all speak in favor of the Deventer Müller method. SCHMID.

Zangemeister: A Maneuver for the Correction of Face Presentation. (Händgriff zur Umwandlung der Gesichtslage.) *Deutsche Grenzsch. f. Gyn.* 18, 9, 19, May.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

The author desires to present a new maneuver for the correction of a face presentation. It is based on former methods yet in its combination possesses something individual and, that is more important, serves its purpose in a much simpler and protective manner. It is as follows: The hand corresponding to the face (in ment. laevo anterior (the left) is inserted upward alongside of the chin, the thumb is hooked into the mouth and the fingers are laid upon the thorax. The chin is pushed up and by the thumb and the tips of the four fingers force the chest toward the mother's back while the outer hand forces the buttocks to and the hind abdomen. It will be seen that with this maneuver the correction of the body position as well as the rotation of the head can be carried out with the hands, whereas another person is necessary to carry out the Thurn maneuver. In addition the head is inserted into that side of the lower uterine segment which is stretched the least.

The author employed this maneuver in a series of cases. The correction was accomplished very easily.

That it is not always successful is due to conditions. As the omentum is considerably drawn out in primary face presentations and the position of the breech rather difficult, one there may be a recurrence of the face presentation after correction. In one case the correct one failed on account of a fetal goiter and existing meningocele. But that was a case surely not adapted to correction. The author does not deem it advisable to try the maneuver in every case if a presentation but under certain conditions he considers it very advisable procedure for the benefit of mother and child.

Rizzenius. Death Due to Rupture of Oesophageal Varices Occurring During Labor (Morte d'une parturiente par rupture d'arterio-vegies). *Gaz. med. de Paris* 1894, 9, 220, 30.

By Zentralbl. f. d. Gynäk. (Geburtsh.) d. Grenzgeb.

The patient, a woman of 35, was admitted to the hospital at the fourth pregnancy. She complained of burning of the throat and of parasthesias in the hands. She appeared dull and melancholy. A few days before delivery hemorrhage of the gums occurred, and a few days later severe hæmatemesis. The day after labor set in. The presentation was a breech presentation (third child) deep asphyxiated attempts to resuscitate failed in failure. The woman suffered several more attacks of hæmatemesis and perished after all treatment died shortly after delivery.

At the autopsy the hæmophages as found to be the normal size, the thrombi were enlarged. The liver as it contained eight 800 grms. the spleen increased of one and consisted of numerous varicose dilatations, reformed the nodes of the oesophagus. A large amount of black blood as found in the stomach and oesophagus. The direct cause of death was the hæmorrhage from the oesophageal veins. **BARRELLER.**

Lange. Fetal Intra-peritoneal Hemorrhage During Labor Due to Rupture of the Uterine Veins (Intra-peritoneale Aushutung intra partum infolge von Venenruptur des Uterus). *Zentralbl. f. Gynäk.* 1894, 9, 220, 51.

By Zentralbl. f. d. Gynäk. (Geburtsh.) d. Grenzgeb.

This is the report of a case of rupture of the uterine veins during labor in a bipara 3 years old. The labor began six weeks before term. Severe pains were suddenly felt in the abdomen about fifteen hours later with sensation of an internal rupture. Seven hours after the attack severe syncope with loss of blood took place. When medical assistance reached the patient the abdomen was very tense and hard. The uterus could not be distinctly outlined. The fetus was not plainly palpable, but the fetal heart could be heard. The patient was pale and the pulse was gone. A foot was brought down to accelerate labor and the escaping amniotic fluid, as free of blood. Symptoms of internal hæmorrhage existed with dullness in the lower left abdominal region. An exploratory

puncture revealed the presence of clear blood. On immediately opening the abdominal cavity a large amount of blood was found free in the peritoneal cavity. The blood was flowing in a thick stream from a perforation in the uterine serosa which was the size of a dime and located at about the level of the uterine os at the left lateral posterior border of the uterus. The child was dead. A supravaginal amputation of the uterus was performed. The patient died two hours afterwards.

Besides severe anemia of all the organs nothing else was found at autopsy. A sound introduced into the perforation of the uterine serosa entered an open blood vessel. Pathological changes could not be recognized in this defective area. Serial sections show rupture of large thin-walled varicose vein loop situated underneath the serosa. The varicose enlargement plus the pressure caused by the labor must be considered the etiological factor of the rupture.

Similar cases are reported in literature. A differential diagnosis must be made from rupture of the uterus rupture of extra-uterine pregnancy (combination of an intra-uterine with an extra-uterine pregnancy) or gravidity in an accessory corn, premature detachment of normally inserted placenta and rupture of blood vessels in the region of the spleen or near the uterus. To enable one to recognize such cases the author recommends paracentesis with a fine cannula. **ERMSBACH.**

Reinhard. Medical Treatment for Weak Labor During Parturition (Zur medikamentösen Behandlung der Weichschwäche während der Geburt). *Deutsche med. Wochenschr.* 1894, 20, 747.

By Zentralbl. f. d. Gynäk. (Geburtsh.) d. Grenzgeb.

Experiments with coffeeum natro-salicum having failed to increase labor Reinhard used pituitrin, which had no effect in three cases and caused lasting contractions which endangered the life of the child in three others. Pituitrin gave good results in seventeen cases and failed in three. It caused tetanus ten lasting fifteen minutes in two cases. Secale-dialysat Golas given in doses of 5 grms. and eventually given repeatedly gave good results in eleven cases and no in two cases. It never caused tonic contractions. The scarcity and weakness of labor is mainly influenced, not the duration. **MORRIS.**

Vogelsberger. The Galvanization Treatment of the Uterus According to Bayer (in Conjunction) with Pituitrin as Means for the Artificial Induction of Premature Labor and Labor Term (Über Galvanisationsbehandlung des Uterus nach Bayer in Verbindung mit Pituitrin, als Mittel zur künstlichen Einleitung reiferer und vorzeitiger Geburt). *Med. Wochenschr.* 1894, 20, 630.

By Zentralbl. f. d. Gynäk. (Geburtsh.) d. Grenzgeb.

The author recommends galvanization of the uterus in combination with pituitrin for the artificial induction of premature labor. This procedure was carried out in 3 cases. Any transportable battery

is sufficient. A current of 10-30 M.A. is necessary. A cathode, a sound-like electrode, is introduced high into the cervix. The node is in the shape of a plate and is laid on the abdomen over the fundus and sides of the uterus and is moved until contraction is produced. A few minutes rest and the procedure is repeated. If no spontaneous contractions result in 20-30 minutes an interval of two hours is allowed to pass. If no spontaneous contractions set in during the first session we must conclude that no excitability exists on that day and repeat the treatment. A vaginal douche with tincture is given before galvanization as the mucous membrane offers protection against possible burns.

Pituitrin in conjunction with galvanization is not advised at the onset as a contraction of the cervix occurred in three cases, similar to its action without galvanization. Therefore pituitrin should not be used until cervical dilatation of at least three fingers is present. In abortions the cervix must be completely effaced. Then with cm of pituitrin the progress is hastened considerably. Four cases of miscarriage and six premature labors are treated. It failed in only two of the artificially induced abortions. The cause for the failure is the low excitability of the uterus in the middle months of pregnancy. As rule only two to three sessions were necessary. In one instance 21 sessions are required. Powerful contractions set in spontaneously increased by pituitrin till delivery occurred. In three cases pituitrin as not necessary at all. Labor lasted 1 to 48 hours. In one case 4 1/2 days.

The indication in most cases was premature rupture of the membranes without contractions following. There are no disadvantages to the galvanization method. Its advantages over the older methods are: It guarantees normal labor because the stimulation with galvanization is similar to the physiological stimulation. There is less danger of infection than in intra-uterine manipulations or in blocking the secretions as it responds Wolff.

Kehrer Subcutaneous Symphysiotomy of Frank
Die subcutane Symphysektomie von Frank (Arch.
Gynäk. 9, 3, 1917, 204)
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Kehrer reports in detail ten cases treated with the subcutaneous symphysiotomy of Frank and emphasizes the technique. As result of the operation, the symphysis separates 1 to 3 cm. To prevent injury to the erectile tissue the author in the future intends to divide the ligamentum and the crura clitoridis with double edged knife close to the bone for distance of 1 cm on both sides. The advantages over beboetomy are also all, the prevention of injury to the bladder with resulting vesico-labial fistula, urinary infiltration of the connective tissue, smaller symphyseal hematomata, prevention of callous formation with resulting contraction, permanent enlargement of the transverse diameter of the pelvis and firm cartilaginous union. The disadvantage is the transient oedema of the

valva extending from the hematomata, which may prolong convalescence indefinitely. To prevent their formation Kehrer advises early rising of the patient. All general contracted and flat rachitic pelvis (c. v. over 6.8 cm.) in anterior as well as posterior positions, oblique or transversa positions with prope of cord or extremity and brow presentations are the indications for this operation. The child must be at term and alive. Spontaneous expulsion is to be expected but pituitrin is administered when the pains are weak.

The operation is contra-indicated in infected cases and where infection is suspected. It contraindicates upon the fields of the classical Caesarean section, extraperitoneal section, high forceps, perforation of the living child, prophylactic version and premature labor. The last four operations mentioned are not to be considered for obvious reasons. The operation can be performed under either chloroform or sacral anesthesia. The results in regard to the patient's ability to walk are excellent. The mortality in eighty-eight cases found in literature was zero for mother and child.

KLAUS HOFFMANN

PUERPERIUM AND ITS COMPLICATIONS

Jardine and Kennedy Three Cases of Symmetrical Necrosis of the Cortex of the Kidneys Associated with Puerperal Eclampsia and Suppression of Urin
Lancet, Lond. 9, 3, 1917, 129
By Surg. Gynec. & Obst.

The authors give the clinical histories of their cases and describe the pathological findings. The first patient showed all the symptoms of eclampsia except convulsions. The second patient had only one convulsion. All three were delivered prematurely and in only one case was a live child born.

The kidneys, which appeared to have been healthy organs, were the seat of symmetrical necrosis of the cortex. The necrosis was more or less limited to the outer two thirds of the cortex, and in degree corresponded to the suppression of the urine. There was extensive thrombosis of the cortical blood vessels which did not extend beyond the margin of the necrotic area and did not involve the vascular arches.

C. H. D. M.

Rühmann Clinical and Experimental Investigations Concerning the Action of Oxytocic Substances During the Puerperium (Klinisch-experimentelle Untersuchungen über die Wirkung der Wehenmittel in der Nachgeburtsperiode) Munchen, med. Wochenschr. 5, 12, 67
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The type of the contractions of the uterus and the influence of oxytocic substances upon its motor function can be studied very graphically during pregnancy and labor but no such investigations have been carried out yet during the puerperium. Rühmann has been successful in devising a method for the determination of the motor function of the fresh puerperal uterus. According to him the post-

partum movements of the uterus are in the form of contractions.

On the basis of his studies with glandutrin, pituitrin and pituitrin he concludes that the post partum contractions are influenced powerfully by those substances, especially in tonic of the organ. Contractions are obtained within four to six minutes following intramuscular injection and within ten to thirty seconds following intravenous injection. This also in those cases in which no contractions could be elicited by the usual methods. In six cases of severe atony as well as in ten mild cases the hemorrhage was controlled with intravenous injection of glandutrin alone. The author hopes that all intra-uterine manipulations will eventually be discarded in favor of the use of hypophyseal extract on account of the danger of infection. It is possible also under normal conditions to decrease the physiological placental hemorrhage by giving an injection of extract of the hypophysis.

The author shows in a conclusive manner the value of the prophylactic method in six cases of placenta previa and fourteen cases of classical Cesarean section. In contradistinction to pituitrin the action of secocornin occurs only after twenty or thirty minutes and its maximum action is not attained until one and one half hours after administration. Similar or even inferior action are other ergot preparations. Ergot increases only the intensity of the contractions; it does not shorten the puerperium immediately as does pituitrin. Hemorrhages occur during the interval and not during the contractions. The author's investigations, therefore, prove that secocornin alone does not influence uterine hemorrhages. SCHMIDT.

Huggins. Differential Diagnosis and Treatment of Puerperal Infection. *Proc. A. S. S. N. O. G. & O.* 93, xvi, 695. By Surg. Gynec. & Obst.

The author emphasizes the desirability of exactly locating the puerperal infection. If some intra-abdominal condition is strongly suspected, the author believes an exploratory incision should be made in order to palpate the ovarian veins, etc.

Treatment. The most important barrier against infection is healthy patient. In other words, a woman should be under the care of physician from the beginning of pregnancy. The author condemns the use of the curette and removes retained placental tissue only when the uterus is soft and baggy; this he does carefully with the finger. He drains local abscesses and peritonitis cases early and keeps the patient in the sitting posture and out of doors all the time. EUGENE CAR.

Schweitzer. Prophylaxis of Puerperal Infection (Zur Prophylaxe puerperaler Infektion). *Deutsche Gesellschaft f. Gynäk. u. Heb.* 93, May. By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäk.

In spite of all the precautions taken to prevent the occurrence of an external infection in the puerperal woman, there are, nevertheless, a fair number of

infectious cases of which an autogenous origin must be assumed. It occurs usually in those cases which during pregnancy had a pathological vaginal secretion. The author advises a prolonged douche treatment before labor in all women with such a secretion. Lactic acid is used in 3% per cent solution. This inhibits the growth of cocci and most pathogenic bacteria. The cocci after daily douches are gradually replaced by the normal flora of the vagina. After daily douches for ten days the pathological secretion gradually returned to normal in 90 per cent of the cases. 80 per cent of those harboring the streptococci became free of this organism. The bacilli which replace the pathological germs are acid resisting and acid-producing organisms, which augment and continue the action of the lactic acid. Concentrated solutions of lactic acid and other antiseptics only injure the secreting portion of the vagina and are not beneficial.

Among 1500 women who remained in the clinic some time before delivery there was a morbidity of 1 per cent excluding those who had only a few douches (2 douches daily for ten days being considered as necessary) the morbidity was 7.3 per cent. 7.1 per cent in cases with normal vaginal secretion and 30-40 per cent in cases with pathological secretions. The author therefore attributes this reduction in morbidity to the beneficial action of the 3% per cent lactic acid douches, and advises its use as prophylactic in the latter days of pregnancy.

Stoddard. Puerperal Insanity. *Clinical J.* 93, xiii, 80. By Surg., Gynec. & Obst.

In this article Stoddard discusses insanity occurring in the puerperium but he believes that puerperal insanity is misnomer. It is his belief that there is no complex of symptoms that would lead one to diagnose puerperal insanity if he did not know of the existence of a recent delivery. This kind of insanity usually occurs in persons predisposed to mental disorder or may be caused by intoxication or infection and he calls it intoxication or infection psychosis or acute confusional insanity. Patients who usually develop mania or melancholia are troubled with the constitutional psychosis, and heredity plays a part in about seventy per cent.

In the treatment of septic cases serum therapy is used, but it seems to have little control over the mental condition. Breast feeding should be stopped and the milk dried up in all cases. Rest in bed, proper feeding, and narcotics for sleep are all necessary. EUGENE CAR.

MISCELLANEOUS

Fromm. The Relations of Affections of the Heart to Pregnancy Delivery and Puerperium (Die Beziehungen der Erkrankungen des Herzens zu Schwangerschaft, Geburt und Wochenbett). *Deutsche Gesellschaft f. Gynäk. u. Heb.* 93, May. By Surg. Gynec. & Obst.

There is no proof for the teaching that the heart hypertrophies in normal pregnancy. The heart is

placenta give very strong reactions. One case gave negative result, but the foetus had been dead for from three to four weeks, and the reaction does not last that long.

J. R. MINNA

Schlimper, Experimental Research in the Physiology of the Hypophysis (Experimentelle Untersuchungen zur Physiologie der Hypophyse) Deutsche Gesellschaft f. Gynäk., Halle, 9. 3. May

By Surg. Gynec. & Obst.

Examinations were made in the rabbits ear according to Bismmaki's method. In the month of pregnancy could an increase of hypophysin be demonstrated. Hypophysin is only found in the posterior lobe. Extracts of other parts of the brain developmentally connected with hypophysis gave no reaction. By the method employed, the hypophysin was demonstrated in bovine embryos as early as the tenth week in man from the sixth month on. In such experiments the action of histamin, a product of putrefaction, must be excluded.

J. R. MINNA

Bassett, Clinical Experiences with Pituitglandol (Klinische Erfahrungen mit Pituitglandol) Med.

Klin., 9. 3. 1937

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

In 30 cases, following the use of pituitglandol, weak pains were strengthened and uterine contractions, which had ceased, began again. This took place three to ten minutes after injection, and its action lasted from two to two and a half hours. Usually the length of labor was very short. The danger of tetanus is less with pituitglandol than with pituitrin. Pituitglandol can be given to primipara and multipara where there is little dilation of the cervix, and where the head is floating above the brim of the pelvis, if the soft parts are not too rigid and the relationship between the size of the head and the size of the pelvis is normal. Cumulative action and secondary weakening of uterine contraction do not occur. Intramuscular injections are dangerous. They can not be depended on to bring about an abortion, but after uterine contractions have begun, and in an incomplete abortion, they give good results. In three cases of full-term pregnancy, labor and delivery followed injection of pituitglandol.

WETZEL

Zanfreginal, Organotherapeutic Value of Adrenalin in Pregnancy (Organoterapeutische Verwendung von Adrenalin in der Schwangerschaft) Ann. di ostet. ginec. Milano 9. 3. 1937

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

The author cites fifty cases in which there were good results following the treatment of severe cases of vomiting of pregnancy with adrenalin. The results depend on the quality of adrenalin used. The treatment is commenced with twenty to thirty drops of adrenalin hydrochloride daily increasing the dose three to ten drops daily until improvement sets in. In very severe cases the dosage is increased to eighty one hundred drops daily. When the symptoms are lessened and the condition is im-

proved, the dose is gradually decreased. The duration of the entire treatment is twenty to thirty days. There have been no complications or serious after-effects on uterus or foetus following this treatment, even in those very serious cases where four to five mg. of adrenalin were administered daily.

SIMON

Ziemek, The Value of the Caput Succedaneum as a Sign of "Vital Reaction" (Die Bedeutung der Kopfgeschwulst als Zeichen der vitalen Reaktion) Wochenschr. f. gerichtl. Med., 9. 3. 1937 Suppl. No. 5

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The author placed isolated leeches and between them Blier pumps and periodically exerted powerful suction on the entire surface of the body of a dead foetus in order to determine whether the caput could be formed in a dead foetus. These areas were then examined macro- and microscopically and resembled in every way the sections of the caput.

VORGER

Koch, Modern Echolol, with Special Reference to B-Imidazoethylamin (Kritische Betrachtung zur Frage unserer modernen Wehenmittel mit besonderer Berücksichtigung des B-Imidazoethylamins) Zentralbl. f. Gynäk. 9. 3. 1937 564

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

Koch finds beta-imidazoethylamin (histamin) much like pituitrin. On injection of $\frac{1}{4}$ mg. into the perito, pronounced labor-pains soon developed. The hemorrhage would stop but in the course of 10-24 hours the uterus would again become inert and the hemorrhage so pronounced that second injection would be necessary.

A rapid involution of the uterus was brought about during puerperium by giving 6 drops of a 1:500 solution of the drug three times daily. He treated thirty-three patients, twenty-five women having injections during labor (maximum dose 1 mg.). Secondary reactions were noticed in 10 per cent of the cases. These were headache, parched mouth, palpitation, etc. The inertia uteri occurred in three cases, in two of which the patient became very pronounced, but the author has had similar experiences with pituitrin. He had three cases of intra-partum death in pituitrin medication, two of which were due to the stormy contractions of the uterus.

WIMMER

Demme, Pelvic Measurement by Means of X Rays (Beitrag zur röntgenologischen Beckenmessung) Deutsche Gesellschaft f. Gynäk. Halle, 9. 3. May

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

Demme and Kehrner describe an apparatus with which they are able to take measurements of any internal point of organs. They realized the inability to measure distances by one picture, even though all the different points are on the plate. They connected the focus of the tube and the two pictures taken, with two threads, which cross each

other. The picture is taken from two different points, and the exact distance can be read off by means of these threads. The pictures can be taken from any angle. The apparatus is adapted not only to taking pelvic measurement, but also for determining the size of organs or the distance of any two points within the body. It is simple in construction.

Perrando The Significance of Meconium in Dissections of the New-born (Del significato rispetto agli usi che ne sono desumibili necropsicos del meconio). *Riforma med.* 913 XXX, 5, 5.

By Zentralbl. f. d. ges. Gynaek. Geburth. u. d. Gynaek.

The meconium is doubtless of great importance in forensic post-mortem autopsies. Its viscosity may allow conclusions as to the age of the foetus. In stillborn children more or less meconium is found in the liquor amni. The colon may be absolutely empty, this being caused by direct pressure more often than by disease, by monstruities and injuries of the central nervous system. With trends of the intestines there is no meconium in the lower portions of the intestines above the lower portions, it has a specific character and is of pathological importance for congenital stress of the bowels.

Maceration does not cause any particular changes in the meconium and its elements can be differentiated up to the second and third stage. The meconium is quickly emptied, though not without exceptions, in foetuses that died few days after parturition.

Braunauer

Franz The Toxicity of the Urine During Pregnancy Labor and Puerperium (Über die Giftigkeit des Harnes in Schwangerschaft, Geburt und Wochenbett). *Deutsche Gesellschaft f. Gynaek. Halle* 1913, May.

By Zentralbl. f. d. ges. Gynaek. u. Geburth. u. d. Gynaek.

On the basis of numerous investigations the author concludes that the urine of healthy pregnant women is not more toxic than the urine of non-pregnant women, and that in many cases the urine is more toxic during labor than during the puerperium. During the puerperium it is slightly more toxic than during pregnancy. The urine is highly toxic in toxemias of pregnancy and especially in eclampsia. Each and Zimmer have lately confirmed these findings, although each only occasionally noted drop in temperature due to the toxicity of the urine, whereas the author observed it quite frequently. The urine in fatal cases of eclampsia is less toxic because of the retention of the toxic substances, the result of injury to the kidneys or to an incomplete metabolism in which the albumin products are not split up completely. To draw valuable conclusions from this work the urine of the individual case must be examined repeatedly during pregnancy to determine the relative toxicity of that urine, and so become aware of dangers when they arise. The clinical picture must always be considered, and especially the kidney function of the patient.

Fowler Lower Arm Type of Obstetric (Brachial) Paralysis; Report of a Case. *Internat. J. Surg.* 9, 3, XLVI, 96. By Surg. Gynec. & Obst.

The case reported was that of a girl three years old who had a paralysis involving the fore-arm. The condition had been present since birth and had followed forcible traction on the arm by the midwife in attendance. The radial head was found dislocated. The hand was fixed at the wrist with slight ulnar deviation, the thumb was adducted and extended. There was hyperextension of the proximal phalanges; the distal phalanges were fixed upon the proximal. Diagnosis: rhesus-epi- and ulnar paralysis.

The causes of this condition are several. The most common is tension on the nerve roots during delivery. It may occur in either breech or vertex cases. When the head is hyperextended the nerves are put on a stretch and traction may very easily overstretch them.

The treatment should be surgical and is necessarily procedure of some magnitude. The general condition of the child should be carefully considered before attempting the operation. Operations which may be performed are: (1) Nerve implantation, (2) excision of damaged nerve tissue followed by suture, and (3) plastic operations for contracture deformities.

J. H. Smith

Hinselmann The Origin of the Syncytial Layer in Human Ova (Die Entstehung der Syncytialschicht beim menschlichen Eizell). *Deutsche Gesellschaft f. Gynaek., Halle*, 913, May.

By Zentralbl. f. d. ges. Gynaek. Geburth. u. d. Gynaek.

Human ova, early in the second month, were serially sectioned ($\frac{1}{16}$ to $\frac{1}{3}$). The proliferating Langhans cells penetrate into the decidual basalis as anastomosing syncytial trabeculae. In this way the highly complex network of syncytial tissue arises. The maternal tissue in these projections dies off as a result of the chromotrypsin and the refuse is carried away by the blood and lymph. Circumscribed parts of the syncytium may increase in the plasma and amniotic fluid division may be present. The masses are then no longer in the plane, but are surrounded by a delicate syncytial net work, but develop into caverns that are surrounded more or less by syncytial membrane.

As soon as the human ovum becomes implanted, this syncytial system begins to develop. Then the tryptic cells of the mucosa function and the refuse of the maternal tissue is carried away by the blood and lymph streams; thus the whole organism becomes affected.

Görtenberg Remarks on Rottler's Method of Treating Contracted Pelvis (Bemerkungen zu Heinrich Rottler's Verfahren zur Heilung der Beckengefährdung). *Zentralbl. f. Gynaek.* 9, 3, XLVI, 309.

By Zentralbl. f. d. ges. Gynaek. u. Geburth. u. d. Gynaek.

The chiseling off of a piece of the promontory of a contracted pelvis to the extent of $\frac{1}{16}$ to $\frac{1}{3}$ cm.

according to the method of Rotter Schmid is a rather serious procedure for static reasons. Gerstenberg found in skeletonized pelvis after operation an average increase of .85 and .75 cm. respectively for the sagittal measures of the lower surface of the fifth lumbar and the upper surface of the first sacral vertebra. During operations on fresh cadavers the author found continued and serious hemorrhages from the first sacral vertebra. The anterior longitudinal ligament is especially broad in this region and a considerable portion is left behind on both sides after the operation. The procedure lengthens the true conjugate and also in certain sense, the transverse diameter. In the delivery the head is not pushed far forward by the decreased promontory and, therefore, does not enter the pelvis through the more anteriorly situated smaller transverse diameter as under ordinary conditions, but through the larger transverse diameter. The shortest anterior posterior diameter now runs from the lower edge of the chancelled promontory (middle of the first sacral vertebra) to the symphysis. If the former true conjugate as seven centimeters, then the new conjugate is still so small that serious hindrance during labor is to be expected. Therefore, the operation should not be performed in pelvis with a conjugata vera less than 8.5 cm. It is of advantage only in connection with induced premature labor. WAGNER.

Kriewsky. Concerning Heboostectomy (Zur Frage von der Heboostectomie). *Monatschr. f. Geburtsh. u. Gynäk.*, 9 3, xxvii, 435.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Grenzgeb.

After a minute discussion of the views of different authors on heboostectomy its behavior after the division of the pubis, the character of pelvic union, permanent widening and repetition of the procedure several times on the same person, the author presents his conclusions based on personal experience, on clinical observations and literary data, adding two histories. Heboostectomy does not represent a cure-all for contracted pelvis but takes a fixed place amongst obstetrical operations. Within certain limits heboostectomy is comparatively free of danger and the operation of choice in multipara with slight degree of contracted pelvis. The conjugata vera should not be below 7 cm. 3. The experiences gained from case reports permit us to perform heboostectomy also in primipara even in an emergency if otherwise perforation of the living child only could come in question and other methods of delivery as Caesarean section cannot be employed. It is self-evident that in these cases the condition of the soft parts must be especially considered and that prophylactic measures, as Schuchardt perinealvaginal cesarean incision according to the proposition of Van der Velde, must be used.

4. The least dangerous method is Döderlein's. 5. Labor must be immediately terminated by a corresponding obstetrical operation after heboostectomy. 6. The after treatment does not demand any special appliances, an early lateral position is to be recommended. 7. Union of the separated bones takes place very soon, either a bony or connective tissue cicatrix being formed. 8. A permanent widening of the pelvis by a lengthening of its diameter or by increase in elasticity frequently does not take place which represents a disadvantage of a heboostectomy. 9. The mode of delivery necessary in subsequent labors remains undecided even if heboostectomy had been performed several times in the same patient. HORN.

Fraenkel. Investigations in regard to the So-Called Gland Endocrine Myometrial (Untersuchungen über die sogenannten Glandendocrine myometriale). *Arch. f. Gynäk.* 9 3, xxx, 5.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author was able to corroborate the findings of Ancel and Bouin in regard to the presence of the gland endocrine myometrial (gland with an internal secretion in the myometrium). The author's investigations were conducted on the uterus of pregnant guinea pigs. The structure consists of nests or strandlike cell groups within the inner circular muscle layer of the uterus in the neighborhood of the placental site. These cells, 5 to 37 μ in length, vary in form, being spindle shaped, three cornered or polygonal with granular protoplasm and no cell membrane. The round nuclei are mostly small (2 to 6 μ) and centrally located, without definite chromatic figures. These cells lie either singly in tissue clefts, lymph spaces in larger groups between muscle fasciculi. In the mucous membrane and in the outer longitudinal layer they are found only rarely. With the von Gieson stain they are sharply differentiated from the muscle fibres and connective tissue, the cells being dark brown with the nuclei dark blue.

They have been found between the twenty first and twenty-sixth days of pregnancy only, and then not constantly. In regard to their histogenesis nothing definite can be stated. Morphologically they are different from the placental wandering and giant cells. Being confined to the placental area and the retro-placental muscular layer as well as occasionally to the decidua, they have migrated from the placenta to the syncytial wandering cells. The vascular relation of these nests proves they are not of glandular nature. In contradistinction to other glands with internal secretion, capillaries are found only in small numbers between the cells. The functional significance of these cells is, therefore, still in doubt. SCHWILLER.

GENITO-URINARY SURGERY

KIDNEY AND URETER

Smith Bilateral Nephrolithiasis. *N Y M J*
93, xxviii, 282. By Surg. Gynec. & Obst.

The author states that he performed successfully seventeen bilateral nephrolithotomies in cases of bilateral nephrolithiasis, with the technique given below. The operations were performed under mitrous-oxide-oxygen-ether anesthesia, either in sequence or the three merged to meet the immediate indications. He placed the patients laterally, nearly prone on the table, and elevated the kidney area by

Cunningham's attachment. An incision is made in the lumbar region. The renal vessels were held by the fingers during the kidney incision, and subsequent manipulations. Drainage of the kidney was employed. The hemispheres were approximated by three ligatures carried around the kidney and tied, leaving no suture material in the kidney substance, following the advice of Moore. The author believes that it is often desirable to incise the kidney pelvis when the radiograph shows stone in the pelvis only and the kidney is not otherwise diseased. There was no urinary fistula when the kidney was incised and drained.

Following operation the patients were given normal salt solution by proctoclysis. After a few hours the head and shoulders were elevated and the patients were given an abundance of water by mouth with urinary antiseptics. If anuria threatened the drains were removed temporarily, hot packs applied to the entire body and hot fomentations over the kidneys, and diuretin was given hypodermatically. The author thinks that the calculi are probably bilateral in from 30 to 50 per cent of cases, and if both kidneys harbor calculi, it is probably better to operate on both at one time, if the patient's condition, which must be determined during the course of operation, will warrant the additional operation. With the above mentioned methods, he is of the opinion that the mortality is encouragingly low and the ultimate results, measured in life and function, are in the great majority of cases most satisfactory. J. Rame

Arcefin Biliary Calculi Causing Errors in Renal Radiography (Les calculs biliaires causes d'erreurs en radiographie rénale). *Lyon med* 93, cxx, 79. By Journal de Chirugie.

Cases are frequently met in which there are thought to be both urinary and biliary stones, when in reality only the biliary stones are present. Nearly every one believes that biliary stones give no shadow on the X-ray plate, so if by chance a biliary stone does show and the clinical symptoms are

such that there is some doubt concerning the diagnosis, and there is blood and albumin in the urine, diagnosis of urinary calculus is made.

Shadows of biliary calculi resemble closely those of renal, and the differences are not clearly understood. Most radiographers and surgeons have never seen or have never correctly interpreted plates showing biliary calculi.

Arcefin has collected 11 cases in which radiographs of the urinary tract have disclosed biliary stones in patients having urinary symptoms. He did not find a case in which the plate showed the shadow of ten faceted calculi, polygonal in form, with more or less rounded edges, below the twelfth rib at the level of the first, second and third lumbar vertebrae. The periphery of the stone alone gave shadow. The shadows corresponded to the location of the gall-bladder and diagnosis of gall-stones was made. The patient was not operated upon.

Goulloud reported a case in which there were stones casting shadows similar to those described above at the level of the twelfth rib. The appearance of the shadow, as like that of the shadow cast by uric acid stone. An operation for renal stone was advised on account of the predominating renal symptoms. Pyelography was not attempted. Nothing was found at operation at autopsy. A few days later one large stone was found in the common duct and sixty faceted stones in the gall-bladder, which did not show in the radiograph.

In order to make radiography more accurate, such causes of error must be recognized and studied further. J. Duval.

Isaacs Experiments on the Influence of an Injured Kidney upon the Other Kidney (Experimentelles über die Einwirkung einer kranken Niere auf die Niere der anderen Seite). *Mitt. u. d. Gesellsch. d. Med. Chir.* 93, xxvi, 1.

By Zentralbl. f. d. ges. Chir. 1. Grossech.

The author occluded the blood vessels of one kidney in rabbits and dogs, extirpating the other kidney after a longer or shorter interval. The onset of total necrosis of the occluded kidney was followed by the resorption of decomposition products having a toxic effect on the other kidney, as shown by epithelial desquamation and more or less pronounced parenchymatous changes. This reaction persisted for one to two months when the necrotic kidney reduced to a small calcified mass produced no more toxic substances. If the urinary passages of only one kidney are occluded or the occlusion of the blood vessels is preceded by nephrectomy with implantation into the omentum, or decapsulation and enveloping with omentum, whereby collateral cir-

culatation was established, then occurred in the other kidney nothing beyond questionable hypertrophy. There was still some toxic substance produced if the renal substance became necrotic suddenly and in circumscribed areas.

In extending his studies to the liver excising a part, enveloping it with omentum and implanting it in the abdominal cavity the author found that when one kidney was extirpated the necrotic liver section produced only general to manifest toxæmia and no special alteration of the kidney itself. He concludes that the kidney gives rise to specific, toxic substance, which acts on the kidney. *OKURA.*

Kocher The Operative Treatment of Floating Kidneys (Zur operativen Behandlung der Wanderiere) *Chir. u. gynaec. Arch.*, 9, 3, 1911, 545.
By Zentralbl. f. d. ges. Chir. Grenzgeb.

The author describes a new method of nephropexy which he employed in recent case. It consists in removing a strip from the fascia lata 8-10 cm wide and 4 cm. long and suturing the middle to the capsule of the lower pole of the kidney and anchoring the two ends to the fascia lumbocostalis and lumbodorsalis. This makes fascial sac into which the kidney fits like stone into sling-shot. *REINHAARD.*

Caulk The Etiology of Kidney Cysts. *Ann. Surg. Phila.*, 9, 3, 1911, 840. By Surg. Gynec. & Obst.

The author prefaces his article by reporting a personal case of renal cyst due to an obstructive calcareous papillitis. It occurred in a man, fifty-six years old, who complained of a dull aching pain in the right side, beneath ribs, occasionally reflected along the course of the ureter to the scrotum suprapubic soreness, low backache, pain in right hip, slight increased frequency of urination and hematuria. The prostate was moderately enlarged. Cystoscopy was negative while endoscopy revealed a large dark-red bleeding verumontanum with the whole posterior urethra congested. Owing to these findings the author thought symptoms were of prostatic and vesicular origin. Radiographs showed shadow in the bony pelvis on right side probably a ureteral calculus. At operation the right kidney was found enlarged to the lower pole. It was opened and a cyst discovered filling one of the pyramids. This was shelled out and the cavity cauterized. The kidney was closed with interrupted sutures, and the patient recovered.

Caulk states that the main theories as to the etiology of these cysts have been the retentive theory, the new formation theory, the theory that colloid changes of the epithelial and connective tissue cells serve as an origin, the congenital theory and the theory of Krause, which is that the kidney cysts are sometimes secondary to atrophy of the renal lobes in early life corresponding to an obliteration of one of the branches of the renal artery. The author believes that the prevalent idea that cysts even of medium size cannot originate through obstruction of inflammatory origin, is erroneous, as

In his own case there was a definite inflammatory obstruction and fair sized cyst.

The true etiology is obscure in most cases. Renal cysts are infrequent. In 260 topicals Middlesex Hospital, Morris met with but five cases. Israel found but one case in 207 surgical affections of the kidney. That the majority is not of adult life has been shown by Sims who collected 52 cases and found only seven of them under the age of twenty. We cannot associate renal cyst with any particular disease though many have reported such diseases as pneumonia, typhoid fever, dysentery, gall-stones, goit etc. as precursors. Pousson believes that diseases which produce nephritis may aid in the production of kidney cysts. Of the drugs and poisons, corrosive sublimate, phosphorus, glycerine, alcohol, vinylamin, etc., have been thought to be of etiological moment. Petterson and Tollens have tried, experimentally to produce cysts of the kidney but without success. Levaditi, working on mice, rabbits, guinea-pigs and goats, has been able to produce, by the subcutaneous injection of vinylamin, papillary necrosis and sclerosis.

Serous cysts may be single or multiple generally unilateral, situated either in the cortex or medulla, and they vary in size from that of a walnut to that of a child's head. Rendu case of renal cyst contained ten litres of fluid.

The symptoms referable to kidney cysts vary greatly. The small cysts usually pass unrecognized during life and are found post-mortem, while in large ones the symptoms depend upon size, location, pressure effects, presence of infection and hemorrhage. Pain is present in but 60 per cent of cases and when present is usually localized. Hematuria is rare.

The diagnosis has seldom been made even in cysts of large size. It has been confused with floating kidney (and it should be noted that the association of cysts with floating kidney has been observed in a number of instances) hydronephrosis, solid renal tumors, ovarian, splenic, hepatic, mental, pancreatic and mesenteric cysts, and ascites. Cystoscopy, ureter catheterization, functional tests and X-ray have been of little service in differentiating the lesion.

For cysts of moderate size the most satisfactory operation, as utilized by Tuffier, Bardenheuer, Ricard, Recamier and Albarran, is excision of the cyst. Moore and Lejars partial nephrectomy when the cyst is situated in one pole of the kidney. Very large cysts which have destroyed most of the kidney substance, complete nephrectomy is advised. The collected statistics of Quenu, Lejars, Albarran and Tuffier show 54 nephrectomies with 34 cures and 20 deaths.

H. W. E. WAINMAN.

Berner The Cystic Kidney: Studies Regarding Its Pathologic Anatomy (Die Cysteniere, Studien über ihre pathologische Anatomie) Kristiania, Eig. Verlag, 9, 1.

By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author by means of serial sections graphic and plastic reconstruction, has studied in detail 28

cases of cystic kidney — 1 of which were congenital. The remaining 17 were those of adult up to 80 years old. It has found no points in favor of Virchow's papillitis theory and has never found any signs of inflammatory processes. The accumulations of small chromatin-rich cells which are found in the cortex as well as in the medulla, have been attributed to inflammatory processes by many observers. The author however believes that they are due to periglomerular nephrogenous tissue. The sudden formation of small epithelial cysts in this tissue speaks for that fact. The author considers them similar to normal glomerular tufts which are theanlage to the formation of Bowman's capsule with its urinary tubules. Furthermore all transitions from these little nodules to cyst formations, the size and position of Bowman's capsule (in which no papillary tuft is present) are seen.

The fact that polymorphous cells have never been found and there has never been observed any diffuse connective tissue formation such as occurs in inflammatory processes speaks against the inflammatory origin. The typical location of these masses of round cells also speaks for a periglomerular nature. It is found occasionally along the periphery of the kidney, so that one is reminded of the nephrogenous zone of the embryonal kidney.

In accordance with his own theory Berner is able also to demonstrate developmental disturbances which at one time involve one part and another other areas of the urinary tract. The usual developmental error that could be demonstrated is the fact that the tubules from which normal kidneys develop remain separated in the cystic kidney. This is proven most easily by the isolated Malpighian bodies from which bilaminar normal urinary tubules are occasionally seen to project. In few of his cases collecting tubules were entirely absent. Even though the literature the normal canals are frequently spoken of as collecting tubules the author calls attention to the surprising similarity between the normal collecting tubule and the typical epithelial vesicle. If frequently observed collecting tubules in typical branching and the very irregular appearance.

In the pelvis of the kidney he was able also to demonstrate developmental anomalies, for instance, the occasional persistence of the single-layered flat epithelium — typical arrest. At other times the pelvis showed typical formation of large cystic cavities. The author discusses them in detail. In all his cases he was able to demonstrate developmental anomalies. In a number of them there are signs which must be attributed to tumor formation such as papillomatous excrescences, long connected epithelial bands, masses of free epithelial cells, epithelial vesicles floating within the cysts, many-layered epithelium and solid epithelial masses. Many such small compact masses are undoubtedly rests destined for the formation of Bowman's capsule. There is no doubt that epithelial proliferation occurs frequently in cystic kidneys. The question is

whether it is primary or secondary to the disease discussed. Secondary epithelial proliferation is frequently found following inflammatory conditions, but these are absent in cystic degeneration. In many cases the epithelial proliferation is clearly of definitely of primary or tumor nature. The author holds the view that cystic degeneration has nothing to do with retention, that each cyst is the result of a proliferation and in many cases may take on characteristics of adenoma. In other cases these hyperplastic characteristics are absent and the picture is more that of developmental anomaly. The developmental anomaly always precedes the epithelial proliferation. The cystic kidney in other words is a combination of developmental anomaly plus neoplasia. In individual cases one or the other factor may predominate.

All epithelial proliferation occurs in abnormal part of the kidney. The tumor has never seen a normal functional secreting tubule or a part of which was the focus of origin. Each tumor-like proliferation originates in regard to the occasional occurrence of cartilaginous islands in cystic kidneys, the author views considers that that of Cohnheim and Wilms, that the structure is solid tumor and the cartilaginous islands probably sclerotic nodules. It does not believe that they are due to metaplasia. In the tumor material there are quite a number of areas in which such cartilaginous islands occurred. The horn pearls which have been found only by Ruckert and the tumor are contained in cystic kidneys as well as in renal adenomas and are due to ectopic blastema. The author also considers the presence of smooth muscle as belonging to the heterotopes, as he never found smooth muscle tissue in the stroma of the normal embryonal kidney. The presence of fat and mucoid tissue is explained on the same basis.

ANNA.

Scheldermandel: The Infectious Diseases of the Kidney and Urinary Passages (Die infektösen Erkrankungen der Nieren und Harnwege). Abhandl. d. Ges. d. prakt. Med. 1913, 10. By Zentralbl. f. d. ges. Med. Geburtsh. u. Gynäkol.

The author differentiates three types according to the manner of invasion of the collecting organ.

Hæmatogenous (descending) infection from bacteria which find the way some manner into the blood stream. **Urogenous (ascending)** arising from the lower urinary passages. **3. Infection via the lymphatics from the intestine**. Infection from the blood stream is characterized by involvement of the parenchyma. The clinical picture in this condition, usually described as suppurative nephritis, is very variable. Urinalysis has demonstrated direct bacterial invasion from such foci as the tonsils, middle ear and other local foci. Perinephritic abscess is produced by microbial invasion of the perinephric fatty tissues the chief source of infection being furuncles of the skin.

The symptoms are high fever, sensitiveness of the kidney to pressure, severe constitutional depression.

With the accumulation of pus there is swelling and edema in the lumbar region. In the early diagnosis positive urinary (bacteriological) findings are very significant. In vision of the kidney alone is almost invariably hematogenous. When there is involvement of the renal pelvis one must consider in addition to descending infections, ascending (*B. coli*) infection from the bladder and infection via the lymphatics. Against the preponderance of hematogenous invasion is the fact that in the young pyelitis is almost exclusively a disease of the female. A potent factor in promoting invasion by the mobile *B. coli* is condition of urinary stasis. Infection through the lymphatics has its anatomical basis in the lymph passages reaching from the cecum and ascending colon to the right kidney. According to Mueller's researches, it is possible for an invasion to occur via the lymph spaces in the walls of the bladder and ureter.

There are two significant points in the history: previous bladder irritability and ycturia. The sensibility of the involved kidney may vary. Muscular hyperalgia and cutaneous hyperaesthesia are more constant. Mueller's method for recognizing pus in the urine is especially helpful. The reaction in *B. coli* infections is notably acid. Hematuria in uncomplicated cases is extremely rare. The bacteriological diagnosis is important as the author found the causative organism to be the *B. coli* in 85 per cent of his cases. When possible ureteral catheterization is indicated to find whether one or both kidneys are involved. A bacteremia is demonstrable in severe cases. The serodiagnosis in *B. coli* infections is unsatisfactory. The temperature curve is characteristic—chills and fever at first constant, with a deference in 5-6 days. A low pulse tension and undisturbed respirations differentiate this disease from pneumonia. The alternating fever and apyrexia is also characteristic.

Repeated relapses lead to bilateral involvement. Out of 5 cases but twelve occurred in the male. The preponderance of right-sided involvement is pronounced. A correlation between menstruation and pyelitis is noteworthy: 30 per cent of cases occurring in pregnant women. Pyelitis of pregnancy makes itself most felt in the second half. Here, too, in unilateral cases the uterus is physiologically deviated. Pyelography discloses generally dilatation of the ureter at its entrance into the true pelvis, or dilatation of the renal pelvis. In the case of deflection, pyelitis resulting from the first attempt at coitus, there is first involvement of the bladder and after a few days pains in the lumbar region. The prognosis in an uncomplicated case of pyelitis is favorable. A chronic condition may persist for years without any external effect of the process. Bacteremia is often the final stage.

The author inclines towards the medicinal treatment. Vaccine treatment is uncertain. In the more severe cases ureteral catheterization and pelvic lavage with silver nitrate is the procedure of choice. Lying on the left side is recommended for gradual

patients. While the interruption of pregnancy affords very prompt relief it is not recommended. Operative procedures are reserved for complicated cases, such as perinephritic and nephritic abscesses.

P. Mitter.

Bauerleisen. A Case of Post-Operative Perinephritis Serous (Ein Fall von postoperativ entstandener Perinephritis serosa). *Zeitschr. f. Geburtsh. u. Gynäk.* 93, 17, 24.
B. Zentralbl. f. d. ges. Gynäk. u. Geburtsh. 8 d. Grenzgeb.

A consequence of Freund-Wertheim operation, an ascending infection took place which followed the lymphatics along the ureter to the renal capsule and gave rise to an inflammation of the tunica fibrosa and fatty capsule including the fascia renalis. The resulting inflammation the author describes as perinephritis. A secondary invasion of the parenchyma gave rise to a nephritis. The operation of choice is an incision of the kidney. WEINWANGER.

Baetzner. Contribution to the Study of Pyelitis Granulosa (Beitrag zur Kenntnis der Pyelitis granulosa). *Zeitschr. f. med. Chir.* 93, 1, 85.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. 8 d. Grenzgeb.

Baetzner reports a case of pyelitis granulosa which in its clinical manifestations differed from the clinical description of Fritsch in so far as there was no intermittent hemorrhage. He ascribes this peculiarity to the special pathological findings at operation, to-wit, circumscribed knot-like infiltrations. In the etiology of pyelitis granulosa typhoid plays an important part.

REICH.

Drennon. Traumatic Hydrourephrosis. *Ann. Surg.* Phila., 93, 1, 870. By Surg. Gynec. & Obst.

After distinguishing between three groups of traumatic hydrourephrosis, 1. (1) true traumatic hydrourephrosis (2) pseudotraumatic hydrourephrosis (3) ruptured hydrourephrosis, according to Leguen, the author describes the true traumatic hydrourephrosis and reports a case of the same.

As the origin of true traumatic hydrourephrosis he gives the following etiological factors: Traumatic injuries to the ureter which complicate the renal injury and are invariably situated high up near the origin of the ureter which may be either ruptured or contused or even completely severed and thus the cause of cicatricial stenosis or occlusion at the point of injury. A blood-clot in the ureter following injury to the kidney is another cause. This clot may cause obstruction and produce dilatation of the renal pelvis. The increased pressure above would necessarily distend the ureter so that the arrested urine would find its way alongside the clot, which, occasionally would sooner or later become detached and washed away. There are also secondary causes such as stricture, which may lead to floating kidney and this in turn to obstruction of the ureter. A blow over a calcareous kidney may dislodge a small stone which may be impacted in the ureter and thus form a true traumatic hydrourephrosis.

Symptoms of true traumatic hydrocephalus are states, almost mostly congenital cystic kidney. In most of the cases hematuria is present. The size of the hydrocephrotic sac varies according to the nature of the retinal obstruction, which, the sudden and complete may produce a small tumor.

The author bases the diagnosis of true traumatic hydrocephrosis on the preceding traumatic history and clinical symptoms, such as fluctuating tumor retroperitoneal position, originating in the kidney and developing insidiously. Its contents consisting of more or less altered urine.

The differential diagnosis is based on its conditions. In such renal tumor is found via hematonephrosis, pyonephrosis, pseudotumor and ruptured hydronephrosis. At ordering to him correct diagnosis is made (peritonitis or cystitis) when the following features are found. The expanded pelvis is the effecting benign true tumor of the pelvis. In the kidney the dilated calices the flattened parallel of kidney tumor and the obstructive in the ureter. Also the X-ray may be employed in the correct diagnosis of true traumatic hydronephrosis. A case is reported in detail. (10 refs.)

Alleman A Case of Right-Sided Intermittent
Hydronephrosis Caused by T₁₂ Accessory
Renal Arteries Operative Removal of Same;
Recovery (Lia Hall on rectal-uterine internal uterine
cancer Hydronephrosis benign prostatic hyperplasia
Ventricular female accessory Operations and resection
dysentery (Lia Hall) Lordosis left 9 of 11

The above report case of intermittent hydronephrosis which in accessory renal arteries are found to be the cause. After operative removal of these abnormal vessels the patient made full recovery.

Tennant Th Cause of Pain in Pyelography with
Report of Accident d Experimental Find
J. G. A. J. J. Phila 1 h 87

Tenant issues arising relative to the damage which may result to the kidney parenchyma by injection of solutions without accurate control of pressure in pyelography for diagnostic purposes and gives details of one clinical case and of several animal experiments.

The usual method of injecting collagen through large-sized ureteral catheter with piston syringe connected with gauge or pressure index for the determination of pelvic capacity is felt wholly to be the symptom of renal colic expressed by the patient. Damage to the kidney may result before the patient complains of pain irrespective of whether or not irrigation of silver has been injected.

The exact determination of both the quantity of fluid and the pressure can be determined by attaching mercurial blood-pressure manometer to one end of Y tube but the fluid is discharged

under pressure from graduated glass cylinder. The recently published method of Thomas for distillation of the renal pelvis is simpler and more practical method where gravity is sufficient.

A female aged 34 years, presenting symptoms suggestive of chronic appendicitis was found to have complete transposition of viscera and the right pelvis was injected by means of a piston syringe with 5 per cent collargol suspension for diagnostic purposes. The right pelvis received 30 cc and the left 16 cc. Considerable pain followed but the skin grazes are unattractive. Five weeks later injection of cc on right and cc. on left of 5 per cent suspension.

Diagram showed normal left pelvis and large irregular right pelvis with marked shadow cast out by parenchyma extending from center of the right kidney inferiorly just above pole. This shadow was supposed to be diseased area. An exploratory operation was undertaken 2 weeks later. A large wedge-shaped area of kidney substance about 1 1/2 inches wide was found to be infiltrated by the collagen and the capsule overlying this infarct was lifted from the parenchyma by a layer of collagen. The infarct extended to the renal pelvis but as excised without opening it. Patient recovered without relief of symptoms.

On microscopic examination, the tubules are found to contain collagen throughout their entire length and extending into the glomerular capillaries. Collagen from both sections was probably present. The tubular epithelium generally was completely necrotic.

In a series of experiments on freshly removed hogs kidneys it was found that similar extensions of the collagen into the tubules occurred at pressures varying from 4 mm to 8 mm. mercury and upward.

Wartschinsky: Decapsulation of the Kidney
(Zur Frage der Harnrückkapulation) *Chir. Joch.*
Halle-Wittenberg, 1913, 20

By Zentralb. L. d. ges. Chir. i. Gernach.

The patient as a male 17 years of age with chronic nephritis, oedema, albumin 3 per cent hyaline and granular casts. First the right kidney as decapsulated \ improvement followed. After 6 months the left kidney was decapsulated. After temporary improvement there as relapse and after 7 months after the second operation the patient died.

Contrary to other authors, the ter found in place of the removed pulse thick, firm shrunken capsule that produced complete pressure atrophy of that part of kidney. There as no contrast mass with the renal cortex. The kidney nature as that of secondary contraction. The author concludes from this case that nothing is to be gained by ter pulsat in complicated cases of nephritis. The procedure according to Pat unecchello and Flocken is indicated only in craspe of nephritis in gravis and anuria. Eriatop-

sis is special indication for decapsulation, but a secondary co traction due to the formation of a fibrous tissue capsule may occur in some of these cases. The author's experience corresponds to the experiment of Rossell who has found sclerotic changes in the newly formed capsule. The author agrees with Israel in regarding decapsulation as a valuable procedure. **HUAS.**

Moore and Corbett: An Experimental Study of Several Methods of Stunting the Kidney.
J. Surg. Med. 9 3, 1 800
 By Surg. G. Dec. & Obst.

The authors point out that the damage resulting from suture of the kidneys is much more extensive than from the incision and is moreover very variable ranging from slight scar tissue formation to complete destruction of the pararenal space. Where mattress sutures are used small portions of the kidney substance may be strangulated especially in the pyramids. Lat calcium stones with formation of calcium phosphate may also occur. This was produced experimentally in the rat in three months.

After reviewing the anatomy of the blood supply the authors consider the question of methods of incising the kidneys and state their objections to the silver-clip method of Clendenen. They give the results of series of experiments on animals in which the kidney and ureter were sutured. The authors found that the results produced as great if not greater areas of infarction and more damage to the collecting system. In which the incision does not run parallel to the vessels in the parenchyma. They found that if a careful soft tissue dissection is employed the renal vessels can be controlled immediately and the kidney opened with a sharp knife, avoiding the poles, the least damage is done. After the necessary exploration the parenchyma is approximated by 'through and through' sutures of very fine silk.

Kidney sutured by them thus do not bleed and they show by considerable number of experiments that the temporary compression of the renal vessels produces slight desquamation of the epithelium only. Kidneys examined few weeks after simple clamping of the vessels were normal. For their experiments also showed that the clamping of renal vessels for one hour had no serious effect on renal function. Their conclusions are that, while mattress sutures for pararenal cause extensive destruction of kidney substance through and through sutures in fine silk produce but slight lesions. **HUAS. BREWER.**

Lewin: Concerning Bilateral Ureterolithotomy in Calculous Anuria (Über doppelseitige Ureterolithotomie bei calculöser Anurie). *Beitr. z. kl. Chir.* 9 3, 1 800
 By Zentralbl. f. d. ges. Chir. u. Gynäk. Geburth. u. Gynäk.

Most writers assign very minor importance to ureterolithotomy in calculous anuria as compared with operation (nephrotomy) of the affected kidney.

They concede this procedure permissible only under special conditions. They hold removal of a stone a secondary matter. Double sided ureterolithotomy is even more seldom carried out. In conjunction with a case in which this procedure was successfully performed the author discusses the indications and prognosis of this operation. It is indicated in impacted stone in the iliac or pelvic portion of the ureter but adaptable only if the pelvis is otherwise free from stone. In cases of unprotracted anuria it is best to attempt to dislodge the stone first by ureteral dilatation or if section of an indurated fluid. In event of a severe anuria it is necessary to perform a single or double nephrotomy for it favors the re-establishment of the renal function as does an intestinal fistula in ileus. The proportion of cases in which bilateral ureterolithotomy is indicated is very small but its range of usefulness will broaden. **OSTER.**

Hartmann: Operative Treatment of Supernumerary Aberrant Ureters (Zur Kasuistik und operativen Behandlung aberranter harnleitender Uretres). *Zisch. f. Urol.* 9 3, 1 499
 By Zentralbl. f. d. ges. Chir. u. Gynäk.

A thirty three year old female patient had been consulting several physicians for nocturnal enuresis without getting relief. When Hartmann discovered a small opening below the osificum externum in the urethra from which a little drop of urine was passing when the patient coughed. Further examination revealed the opening as the outlet for a supernumerary aberrant ureter. By the vaginal route this ureter was then implanted into the bladder and the patient was relieved of her trouble.

The author collected fifteen cases of supernumerary aberrant ureters from literature there were twelve other cases which it was not possible to decide whether they dealt with a supernumerary aberrant, or lith perfect, reter, and finally seven cases of perfect ureters with abnormal outlet. It is often extremely difficult to find the narrow opening. Sounding is almost always impossible. An operative method of implantation of the ureter into the bladder or into the rethra may be considered, if implantation into the bladder the vaginal the transvesical or abdominal route may be chosen. The vaginal implantation into the bladder is the method of choice. **KUNZMANN.**

Hutchinson: Obstruction of the Ureter by Aberrant Renal Vessels: Clinical Study of the Symptoms and Results of Operation. *Proc. Roy. Soc. Med.* 9 3, VI, Surg. Sect., 20
 By Surg., Gynec. & Obst.

To insure an early diagnosis of vascular obstruction of the reter Hutchinson notes the following signs. It is found generally in males, usually between the age of 5 and 5 rarely younger. The attacks of pain are periodical with an interval of months or years between the early ones, while the later ones come on every week, or oftener. Finally

when the pelvis dilates permanently the attacks cease only a dull pain in the loins remaining. The pains are severe, doubling the patient up and making him sweat profusely. Vomiting is frequent although it does not always occur. The pains are located chiefly in the lumbar region, but may occur in the front of the abdomen, and radiate toward the groin and testes of the same side, rarely into the shoulder. It is one-sided, occurring on the right side twice as frequently as on the left. Relief is obtained by lying on the affected side. Neither medicines nor perients are of use.

Exertion does not cause the pain as a rule. It may come when patient lies down. It is not affected by diet, time of meals, nor constipation.

There are no objective signs. Cystoscopy may show congestion of the ureteric orifice on the affected side. A skidogram will make the diagnosis.

Urinary symptoms are absent there is no frequency of micturition during or after an attack. Occasionally hematuria, traces of albumin and pus are present. The cause is congenital. It is not dependent upon a floating or too mobile kidney.

In the majority of cases lumbar exploration alone is required. The vessel or vessels that fault religatured and excised. A plastic operation has been performed in cases with distortion of the pelvis but without success. The author claims it is best not to open the canal but to straighten out the pelvis and ureter as far as possible. He advises early operation.

LOREN GRON.

Ottow. Contribution to the Study of Intermittent Ureterocol. Vascular (Beitrag zur Kenntnis der intermittierenden Ureterocolis exsialis). *Zschr. f. Gynäk. u. Urol.* Leipzig. 93, 3. By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäc.

The author describes case of unilateral ureteral prolapse the size of which varied with the strength of the urinary stream. It was plainly at its greatest size during action of the ureter and diminished in the intervals. This observation made it clear to the author that the action of the ureter is the explanation of the well-known variability in size and appearance of such ureterocolis. HORNACK.

Lohmeier. Cystic Dilatation of the Vesical End of the Ureter (Cystische Erweiterung des vesicalen Ureterendes). *Zschr. f. Urol.* 93, 3, 17. By Zentralbl. f. d. ges. Chir. Göttingen.

The author describes case of ureterocolis successfully operated by him three years ago by the endovesical route. The patient was woman 39 years old, who had suffered for many years severe pains in the lower abdomen. She had had an appendectomy, double ovariectomy and vaginohysterectomy performed without relief. At the present time she complained of acute bladder catarrh. Cystoscopic examination showed the bladder wall bulged inward by the ureterocolis the mucosa surrounding the ureteral opening was prolapsed. Diagnosis right sided ureterocolis. At operation the prolapsed

mucosa was cauterized with a Loewenhardt cautery introduced through cystoscope. The ureteral opening immediately enlarged bulging of the bladder mucosa disappeared. The patient's symptoms entirely ceased. The author in operations of this kind prefers the endovesical route. OLSSEN.

Zuckerkandl. The Local Treatment of Retention of Urine and Pus in the Kidney by Means of Ureteral Catheterization (Über die örtliche Behandlung vesicaler Harn- und Eiterkammern durch Harnleiterkatheterisation). *Wien. med. Wochenschr.* 93, 2. 345.

By Zentralbl. f. d. ges. Chir. u. l. Gynäc.

Normally there is no tube in the renal pelvis. Residual urine the kidney pelvis must be looked upon as a pathological condition. Complete or partial retention, whether aseptic or infected, can be therapeutically influenced by the introduction of ureteral catheters even though in many cases it may be only palliative measure. Where the urinary retention in the kidney is complete the severe symptoms of the attack, as seen in intermittent hydronephrosis, can usually be relieved quickly by evacuation of the urine by means of the ureteral catheters. The duration of the disease cannot be limited by the catheterization since in cases of complete retention in the renal pelvis pressure atrophy of the kidney tissue appears after short time.

The therapeutic benefits of ureteral catheterization are more marked in cases of chronic incomplete retention, and especially in the infected form. Besides catheterization, lavage of the renal pelvis may have to be considered. On account of hemorrhagic pain, etc., the catheters cannot be retained indefinitely usually not longer than 34 hours. Each case must be examined with due regard for all the symptoms and the anatomical and pathological relations accurately determined by all the modern methods. In all cases of disease of the perirenal or renal tissue, and in those with marked constitutional disturbances immediate operation is indicated. OLSSEN.

Pakowski. Permanent or Temporary Deviation of the Urine by Means of Nephrostomy (La néphrostomie moyen de déviation permanente ou temporaire des urines). *Thèse de doctorat.* 93, June. By Journal de Chirurgie.

The indications for urinary derivati are multiple such as severe tuberculous cystitis, painful and inveterate cystitis bladder tumors extrophy of the bladder pelvic cancer pressing on the ureters, binate vesico-vaginal fistula and some cases of renal lithiasis. The neopson must be short, so as not to require many stitches to repair the fistula must be made on the lower calyx and the drain must be well secured in correct position. When the deviation is intended to be permanent the best way to occlude the ureter is to place it, accordion fashion, by means of stout gutgut. Around each suture thread and on each lip of the incision, some of necrosis 1/4 to 1/2 of inch thick is produced. This

is $\frac{1}{2}$ from the necrosis of $\frac{1}{3}$ or even $\frac{1}{2}$ of the parenchyma wrongly maintained by some a thors

Far from impeding kidney function, natulization improves it as demonstrated conclusively by many cases. In some instances the improvement is such that radical surgical interference may come up for consideration later. If besides, we take into account the fact that there exist a number of perfectly tight appliances to collect the urine must admit that nephrostomy deserves a greater place of practical work than it has been heretofore granted

GASTON PICOT

Kidd A Small Incision-Splitting Incision for the Exposure of the Pelvic Portion of the Ureter
Lancet, Lond., 93 March 578

By Surg. Gynec. & Obst.

The author bases this report on his experience in the dissecting room, and on a series of operations on the living. He advocates an incision three inches in length parallel to Poupart's ligament and one and one half inches above it, the center of the incision being directly over the internal abdominal ring. The various layers of muscles are divided in the direction of their fibers more room is secured by the inward retraction of the rectus muscle great care being used not to cut its posterior sheath. The ureter is exposed at the point where it crosses the external iliac artery. The author claims the following three advantages for the incision: that it avoids injury to the last dorsal and ltho-hypogastric nerves and the deep epigastric vessels and prevents the occurrence of post-operative hernia

HARRIS ROSS

BLADDER, URETHRA, AND PENIS

Lewis Where is the Fundus of the Bladder? *J Am Med Assn 93 Nov. 765*

By Surg. Gynec. & Obst.

In an appealing communication, Lewis asks that the term fundus of the bladder which in truth has origin from the Latin, in meaning the base, be corrected. It is a misnomer, unscientific, the term as applied has reference to the vertex. He asks that the nomenclature be changed, according to the true anatomy of the part and the classification as given by the anatomists, as follows: (1) The summit or vertex (2) the base (3) the body (4) the cervix or neck.

IRVING S. KOLL

Uterberg The Operative Treatment of Rebel-
lious Cystitis Cases with Curettement of the
Bladder and Temporary Urinary Fistula
(Die operative Heilung der rebellischen Cystitis
des mittelst Blasencurettage und vorüberlicher Blas-
enfistel) *Beitr. Klin. Chir. 93, Leipzig 5*
By Zentralbl. f. d. ges. Chir. u. Geburtsh. u. Gynäk.

The author defines as rebellious cases of chronic cystitis in which deeper pathological changes pre-
vent or interfere with the return of the organ to
normal. He divides the disease into two types: one

in which definite anatomical changes of the mucous membrane exist, such as ulcerous cystitis, leukoplakia, cystitis pseudomembranosa and the other without characteristic mucous membrane changes. The etiological factors are gonorrhea, pregnancy and catheterization. Anatomically the severe bladder lesion consists of thickening and induration of the individual layers, which decrease the mobility and dilatability of the organ and convert it into one of fixed capacity. As the most severe changes occur in the submucous layer, curettement of the focus is necessary.

According to the author the entire removal of the mucous membrane through a suprapubic opening with prolonged drainage and irrigations with 3 per cent silver nitrate solution is the most thorough method. If the patient is a woman and refuses suprapubic operation the treatment may be performed through the urethra. In very severe muscle degeneration with minimal capacity the only treatment consists in performing a permanent easily closing urinary fistula to liberate them from the constant desire to urinate. He reports seven cases of personal observation and treatment (six women and one man). Of the three cases in which the bladder curettage was performed through the urethra, two were improved and one had a recurrence after short improvement. Two cases of suprapubic curettement with temporary fistula were decidedly improved. Two cases with a suprapubic curettement and permanent fistula were not improved on account of the extensive destruction of the bladder musculature. The best results are obtained sectio alta, ad curettement. Local treatment produces no results in rebellious cystitis.

DOAN

Lerdau Contribution to the Treatment of Ex-
strophy of the Bladder (Contribution au traite-
ment de l'exstrophie de la vessie) *J. d. chir. 93*
2, 549

By Surg. Gynec. & Obst.

The author groups the various methods of treat-
ment of exstrophy of the bladder as follows:

1. Interventions having in view the reconstruc-
tion of the bladder and urethra.

2. Interventions upon the ureters to avoid the
inconveniences caused by the mucosa of the ex-
strophied bladder and to limit the escape of urine.

3. Interventions having in view the deflection of
the urine into the intestine.

4. Interventions having in view the creation of
vesical pouch possessing an orifice to the exterior
placed under control of the sphincter ani, and with-
out a connection with the rectum.

After brief review of the technique involved in
these methods of treatment with their advantages
and dangers Lerdau evolved a principle which re-
solved itself into steps:

1. Obtain a closed vesical pouch, no matter
how small use entirely or in part the exstrophied
wall since this wall is most apt to fulfill bladder
function.

2. To create this cavity vesico-perineal canal for the escape of urine independent of the internal urethral sphincter with the ring of the sphincter as

This principle was applied in the following case. A boy aged 5 and one half years, the exact age of the bladder epithelias had been operated upon previously. The operator had succeeded in creating a small vesical orifice (the hypogastric orifice). This orifice as to the public emergency had been the margins were all and almost none. The epispastic penis was likewise a result of the successful attempt to construct another. Since no empty index needed to be in the inguinal canal.

The operation proceeded as follows: I step 1. The perineum was incised longitudinally a flap 8 cm long by 4 cm wide as a rule with the base at the navel. The sphincter as next exposed and separated from the anterior wall of the rectum. A large flexor dilator was introduced into the rectum under the folds of the rectum and out of the mouth. Then the rectum and the bladder were directed as far as the tissues between the phincter and the rectum. The Dula flap tissue and the perineal canal made the base of the bladder. At the end of the canal a piece of gauze was placed for epispastic and introduced perineum and the rectum. The bladder was not opened. In order to permit the use of the rectum, one large Thiersch graft was placed around the rectum. The rectum was drained by the Thiersch graft. The Thiersch graft was placed in the rectum to permit the escape of urine. With no longer the bladder thus be as carried introduced at the new and not needed proper position but situated perineal end. The first perineum was lowered. At the end of eight days the Thiersch graft was removed to make the epithelialization of the new and as complete new to be covered by Thiersch graft. At the end of the second graft curved metal sound was introduced through the canal to the base of the bladder. The metal sound and the bladder incised. A large Peters catheter was passed from the bladder to the perineum. The catheter collected about fourteen ounces of urine. The rest escaping through the anterior orifice of the bladder because of the undue prominence of the terretor ligament.

3. At some times, during such the retention there had been frequent haemorrhage and the vesical orifice firmly established, an attempt made to lose the terretor orifice of the bladder by freshening its surface and utilizing the epispastic orifice of the penis as an inverted flap. The sutures held for the most part and the small fistula which penetrated healed slowly under permanent drainage through the perineal meatus.

The patient was kept under observation for

several weeks. After the removal of the retention catheter the patient during the effort of defecation few drops of urine escaped by the vesico-perineal canal but the bladder was not continent at the onset of the sphincter in regard to the continuance of forces was the same as before the operation. The patient was allowed to go home but returned very shortly with suprapubic fistula, which was discovered to be due to a stricture of the newly formed anal canal which would hardly permit the passage of urine. This stricture was dilated until it permitted the passage of urine. The patient returned to the hospital the vesical extremity of the newly formed epispastic canal is the only part of the whole technique because the stricture of the rectum must be kept dilated with sound.

Almost a year elapsed since the operation. The patient returned for periodic dilatation of the anal high pressure the entrance of urine sound. There is a relation between the bladder margins and the pressure for defecation. The amount of urine coming between the rectum and the bladder. The amount of urine collected during defecation is much less than the amount of the bladder. The patient has three escapes from the perineal orifice enough to oblige the patient to carry a catheter for collection. This is due to the weakness of the sphincter muscle. If his knees were not improved the patient instead of performing one of the usual operations for improvement of the bladder.

The author indicates that of all proposed methods for the treatment of the bladder the only ones with a low tension are those which have the formation of a low tension canal. The author does not believe exterior or interior of the bladder or the method which utilizes this purpose as part of the digestive tract are too good. However, the construction of the anal sphincter and segment of intestine taken the already feeble sphincter is too much to be effected. The methods which create a sphincter to be means a segment of the terretor all of the rectum too great and too difficult because the operation held does not lend itself to the anastomosis sutures which are necessary. There is also the difficulty of extending enough of the rectal wall almost producing a fistula.

I most cases there exist a flap of anal wall thick enough and deep enough to be utilized for the creation of urinary reservoir. This reservoir no matter how small, can be dilated enough to be satisfactory for this purpose the dilator is inserted by Noyes is recommended.

I order to find a canal for the escape of urine from the reservoir it is not necessary to resort to external plastic at the expense of the bladder or digestive tract since it is never plastic made from flaps of the perineum, complicated by Thiersch grafts, can perfect itself under the conditions.

ELIAS FRICHT

Oppel. Exclusion of the Bladder (Die Ausschaltung der Harnblase). *Arch. d. chir. Klin. d. Prof. Oppel*. St. Petersburg. 93 IV 3.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports twenty bladder exclusion operations performed in his clinic according to the method of Mirotworzeff. The ureters, after being liberated, were divided as near to the bladder as possible and implanted into the pelvic colon or to the lower sigmoid. The ureter stump was placed in an opening made in the bowel, mucosa being sutured to mucosa and reinforced by a second row of sutures. In the first row of sutures it was advisable to include the adventitia of the ureter to prevent the sutures from tearing out. The operation was performed for ectropism and for carcinoma of the bladder (in the latter as a preliminary procedure) for high epispadias with a cleft sphincter for vesicovaginal fistula in which a plastic operation proved unsuccessful and finally as a palliative procedure in inoperable carcinomata and severe tuberculous infection of the bladder.

In ectropism of the bladder the author discarded the methods of Majdi and Sembotini, since they are accompanied by too high mortality. Of eight cases operated according to the method of Mirotworzeff, two died, both under 7 years. The bladder itself was not removed until two weeks after its exclusion. In carcinoma of the bladder cystectomy was performed twice in the author's clinic after a previous exclusion according to Mirotworzeff.

The author collected ten cases from the literature, six of which the urine was led externally and in the remaining four was led into the bowel. No deaths occurred among all these cases. The implantation method of Mirotworzeff however is to be preferred, since it does away with the gonizing urinary fistula. With the good results obtained in the two-stage bladder extirpation for carcinoma, the indications for this operation must be extended at the expense of resection which poor results are obtained.

A well-functioning sphincter ani is necessary condition for the operation. The condition of the kidneys also is important. Advanced nephritis and pyelitis are contra-indications. A third contra-indication is youth. Children under 10 years offer a high mortality. In conclusion Oppel asserts that although infections which indicate exclusion of the bladder are necessarily accompanied by danger of ascending infection, this is not so great according to his experience, after operation as is generally supposed. In a series of his patients symptoms of unilateral or bilateral pyelitis set in shortly after operation, but they again disappeared after time. Those patients who previously had perfectly healthy urinary tracts reacted more intensely, which must be attributed to an absence of local immunity. To minimize the danger of infection the author advises free catharsis and disinfection of the bowel, and immunizing the patient against the colon bacillus. In his last cases the author observed good results with

milk diet and with the ferment regulative Chlari on the one hand and polyvalent coli vaccine on the other. In regard to the latter question a dissertation by Iljin will appear later. *RUBINOWITZ*

Boerger. A Clinical Study of the Application of Improved Intravascular Operative Method in Diagnosis and Therapy. *Med. Rec.* 93, I, 1901. 14. By Surg. Gynec. & Obst.

The author gives a detailed description of his instruments for intravascular operations. The many conditions in which these are of value are then discussed and cases cited in connection with each. Exploratory excision in suspected carcinoma of the bladder or prostate has been of great assistance in forming a diagnosis not only as to the presence or absence of carcinoma but also if present, as to its probable source. Removal of other suspected vesical lesions is of diagnostic value and sometimes the simple removal results in a cure. Calculi can often be removed with the author's small instruments.

Dilatation of ureters is of service when there is a real stenosis of the ureter or in cases of ureteral calculi where the passage of the stone downward has been arrested. Renal tuberculosis can often be diagnosed from the microscopical examination of small vesical tubercles when no other definite sign of tuberculosis of the renal system can be determined. *J. H. SMITH.*

Ilirsch. The Effect of Gonorrheal Infections upon the Musculature of the Genito-Urinary Tract. *Am. J. Urol.* 93, 12, 1903.

By Surg., Gynec. & Obst.

The author discusses the secondary symptoms produced by infiltrations and fibrous deposits in the genito-urinary muscles. He states that the so-called spasmodic structure may be due to a swelling of the mucous membrane, or to muscular contraction which again has to be classified as the inhibitory action of the bladder wall and the actual spasm of the urethral muscles. The close proximity of the ampulla and seminal vesicles to the bladder may induce, in their infected state, frequent bladder contractions, so-called bladder irritability and chronic cystitis, without causative evidences in the upper urinary tract. This condition is promptly relieved by emptying the seminal vesicles. *HARRY KEANE.*

Pedersen and Cole. Measurement and Projection of the Posterior Urethra and Vesical Floor by Means of Posterior Urethral Calipers and Radiography. *N. Y. M. J.* 93, xcvi, 73.

By Surg. Gynec. & Obst.

To ascertain the exact position of the outlet of the bladder the authors devised a new instrument of the catheter type, so that the bladder may be filled to moderate distention. When withdrawn until the flow ceases, the instrument occupies the exact outlet with the conical head thus voiding the uncertainties incident to the solid no-catheterizing instruments. This new instrument has a head 1 cm. long mounted

penicillin oil. In the latter instance there ensued a severe cystitis with marked pyuria. The other cases suffered only a more or less marked bladder irritability or inflammation of the mucosa. Injection into the renal pelvis without disturbance of the urinary stream provoked only bacteriuria with few leucocytes but no alterations in the pelvis or the canal-systems. After artificial ureteral constriction generally with more or less persisting stasis (up to 68 hrs) severe damage followed, chiefly in the region of the pelvis and upper part of the ureter. The infection was invariably ascending either through the canal-lymphatic system or traversion of infection with simultaneous artificial ureteral constriction gave rise to an infection of the ascending type in which the most marked changes were observed in the pelvis. In the non-operated side there were only minor if any alterations. The following

In order to test the possibility of bacterial passage through the intestinal wall in artificial ureteral stenosis as produced in dogs it was entered for long time. A renal infection was demonstrable cultures from bladder and pelvis being negative. The conclusions are as follows: B. coli is an organism pathogenic for rabbits capable of producing deep seated lesions in the urinary apparatus and factor in concretum production. Of greater importance is urinary stasis, which, even in the presence of most insignificant alterations in the urinary passages, favors infection with the B. coli and increases its virulence. The infection corresponds to the ascending type. Descending infection is possible but infection from the intestine is hypothetical only as long as there is no proof of transmigration of bacteria through the intestinal wall either in conditions that are normal or described as intestinal disturbances. The preponderance of women affected is due to local conditions (shortness of the urethra) which favor the ascent of the germ. In addition there are a number of contributory conditions, as gonorrhea, loosening of the mucosa in the meninges and pregnancy. The unusual incidence in the right kidney is due to the anatomical structure, a predisposition of that kidney to be abnormally low in connection with viscerotopics. In consequence there occurs more or less persistent stasis which by hindering the normal stream affords the first step in hindering infection.

310-1000

Kelly and Lewis. Silver Iodide Can Inject—A New Method for Radiography of the Urinary Tract. *Surg. Gynec. & Obst.* 93, 274, 707.
By Surg. Gynec. & Obst.

Everyone has found that all of the various media injected for X-ray purposes possess various disadvantages. Collargol is widely used and may be taken as a good example of the group. The chief objections to collargol are: (1) It is dirty and stains everything with which it comes in contact. (2) It is expensive. (3) It is a proprietary preparation. (4) It gives rise to various complications following collargol injection have

been reported from time to time. In the cases operated on by Kelly and Lewis the last few months previously injected with collargol it was noticed that the peritoneal tissues were discolored, the collargol having passed through the renal pelvis although the latter was intact. One of these cases required prolonged drainage before healing.

The use of an emulsion of the iodide of silver for skiagraphic purposes was suggested by the fact that it had already been used therapeutically in the bladder by Siler and Uhle. Silver iodide is insoluble in water and must therefore be suspended. This is best done in a solution of quinine acid. The preparations put out by different establishments vary greatly, some being far better than others. Silver iodide is clear. It does not stain. It is exact in concentration and can be controlled. It is bland, stimulating and antiseptic. Its cost is inconsiderable. The silver iodide emulsion generally used by the authors is 5 per cent strength to inject the bladder, ureters or pelvis of the kidney. It casts decidedly better shadows than does collargol solution of equal strength. In fact 5 per cent silver iodide emulsion casts the same shadow fully as dense as will 10 per cent collargol solution. Less concentrated preparations may be employed if the cavity to be injected is of a size as for example, if the bladder being X-rayed. Some have feared that silver iodide emulsion injected into the ureters might precipitate leaving behind particles which might be the nucleus of a future stone but the authors are convinced that this fear is groundless. They conclude that silver iodide emulsion carefully prepared 5 per cent strength is a safe preparation to use for radiography of the entire urinary tract. It is non-toxic and can safely be used even in large amounts.

Smith. The Excretion of Formalin in the Urine: an Inquiry into the Accuracy of Burnam's Test. *Boston M. & S. J.* 93, 1071, 73.
By Surg., Gynec. & Obst.

Burnam's test consists in adding three drops of 0.5 per cent aqueous solution of phenylhydrazine hydrochloride, three drops of 5 per cent aqueous solution of sodium nitroprusside and then an excess of saturated aqueous solution of sodium hydroxide. The solution is heated and the sodium hydroxide must be heated little above body temperature. Formaldehyde, so soon or stronger causes an intense blue which changes to green and then brown. In solutions 50,000 pt. 30,000 the first color is green, going over to brown. Urotopia III not give this reaction. Urotopia may be broken down by distilling with sulphuric acid and boiling when the solution clears.

The article outlines the work of determining the conditions under which the test is of most value; the attempt to determine the conditions causing breaking down of urotopia by kidney or urine and the relation of acidity by titration test and hydrogen ion concentration.

EARL R. FOWLER

SURGERY OF THE EYE AND EAR

EYE

Hall Amblyopia from Hemorrhage. *Intern J* 9 3 xx, 53 By Surg. Gynec. & Obst.

Of the cases in the literature of disturbance of vision as a result of hemorrhage the hemorrhage was from the stomach in thirty-six per cent from the uterus in twenty-five per cent, from the nose in seven per cent from accidental wounds in five per cent from intentional loss of blood in twenty-five per cent and from pulmonary and urethral bleeding in one per cent.

Disorders of vision following hemorrhage occur almost without exception in persons who are previously not healthy. In twenty-five per cent of cases loss of sight appeared during or immediately following the hemorrhage in twenty per cent during the first twelve hours and in fifty per cent during the first three weeks.

The ophthalmoscope findings do not correspond to the degree of loss of vision. C. G. D. LIND.

Meller Chronic Inflammatory Tumor Formations of the Orbit (Über chronisch entzündliche Geschwulstbildungen der Orbita). *Arch f Ophthalmol* 9 3, LXXXV, 147 B. Zentralblatt f d ges Chir. Gernsgeb

Meller reports nine cases of chronic inflammatory tumor formations of the orbit which were observed during the last twenty years. Fuchs clinic. Clinically they appeared as malignant tumors and the operative measures were more or less radical. Histological examinations however showed that they were chronic inflammatory tumor formations which in six cases or probably of histological origin. In two cases the nature as known in no the tumor originated from the frontal cavity.

Meller emphasizes the necessity of ascertaining the malignancy of the tumor by using the Bertoli and Wassermann tests, mercury treatment, examination of the accessory cavities, exploratory excision, etc. before performing any operation. KUSCH.

Mathewson A Case of Pulsating Exophthalmos. *Ophth Rev* 9 3 xxx, 394. By Surg. Gynec. & Obst.

Mathewson reports a case of pulsating exophthalmos following fracture of the base of the skull. When first seen by Mathewson, four weeks after the accident, there was complete ptosis of left upper lid, swelling of conjunctiva, fundus normal vision fingers at eight feet in upper half of field. There was no vision in lower field and no pulsation of eyeball. Vision was undoubtedly damaged by the laceration of the optic nerve. The common carotid was tied

and month later there was little proptosis and no pulsation or bruit. Vision, of course, was not improved. C. G. DARLING.

Weldler Concerning Dermoids and Dermolipomas of the Conjunctiva. *Ophth Rev*, 9 3, xxx, 50 By Surg. Gynec. & Obst.

Weldler reports two cases of dermoid of the cornea, both being located at the outer lower quadrant. Both were solid, one about 5 x 9 mm the other about 5 x 7 mm in size. The only other congenital defect was the absence of a nail on the little finger of the right hand in one of the cases. C. G. D. LIND.

Wyler Enucleation under Ciliary Ganglion Anesthesia. *Lancet-Clin* 9 3 clv, 648 By Surg. Gynec. & Obst.

Wyler discusses enucleation under ciliary ganglion anesthesia and follows the technique of Sowański. In summary of cases operated on he says: Local anesthesia is certainly less dangerous and more agreeable than general for enucleation.

Upon cutting the optic nerve none of the five cases saw the flash of light which one sees so many references.

1. The method is a very easy procedure.
2. It is applicable to inflammatory conditions when infiltration has proven unsuccessful.
3. Healing is rapid.
4. He believes that this anesthesia may be popular in the future for other painful operations upon the globe.

C. G. DARLING.

EAR

Nelson The Value and Indications for Incision of the Eardrum in Otitis Media. *Adams J Res Med* 9 3, lx, 66. By Surg. Gynec. & Obst.

The author points out the fallacy of considering otitis media as a self-limited disease and of waiting for spontaneous perforation of the eardrum. The word incise instead of the term paracentesis is suggested and in opening the eardrum for middle ear disease it should be freely incised. The best rule as to the location of the incision is to incise at the point of bulging if it is localized in some portion of the eardrum. When the bulging is general, the posterior inferior quadrant of the membrana tympani is the safest and best place to incise. Here an incision can be carried upward and backward to the superior posterior border with the knife plunged deeply enough to incise freely through the mucosa covering the inner wall of the middle ear. For this purpose the von Graef cataract knife is the simplest and best.

Dr. Nelson reports incision of the drum in cases of acute and in 3 cases of chronic, otitis media. Only two subsequently required mastoid operations. All of the 5 cases showed objective and subjective symptoms of extension into the mastoid antrum. If not into the mastoid cells, and if practically every case including the two operated upon, all the symptoms disappeared either wholly or in part within 24 hours.

In those cases of chronic suppurative otitis media in which the drum was incised only temporary amelioration of the condition was obtained and the procedure had to be repeated several times. These cases were chronic before seen by the clinic.

With the results noted in the acute cases it is reasonable to suppose that early incision of the drum, or other appropriate treatment, will give all probability arrest serious results. W. LEE H. TAYLOR.

Pierce: Preservation of the Antral Capsule in Operations for Acute and Suppurative Processes of the Mastoid. *T. Am. Otol. Soc.* 9: 313.

By Surg. Gynec. & Obst.

The antral capsule may be more or less differentiated from the rest of the bone as it possesses marked resistance to inflammatory and softening processes to which the mastoid is subject. On this point rest the success of Pierce's operation in preserving the antral capsule. This capsule is that portion of the temporal bone bounded above by diploetic bone and pneumatic cells lying between the antral cavity and the nuchal table of the skull anteriorly by the interposed pneumatic diploetic bone and compact substance of the external auditory canal the outer wall has the same character of bone posteriorly by the compact substance sent in from the root of the zygomatic process, small pneumatic spaces and the walls of the sigmoid sinus and inferiorly by the cubiform plate.

In acute inflammations of the mastoid perforation of the mastoid antrum is invariably through the cubiform floor and downward thus being the line of least resistance to the softening process. If the bone which contains the antrum is destroyed it has been noted that the mucus from the antrum spreads over the osseous structures, making permanent, large dependent cysts lined with mucoperiosteum of very low resistance and hence long treatment.

Dr. Pierce's operation procedure is to preserve this box. The incision is made as in all mastoid operations and the antrum entered from below, taking off the cortex of the bone about half an inch from the tip upward to the lower margin of the mastoid fossa, forward to the hard bony substance of the external

auditory canal and posteriorly about a finger's breadth from this. The soft bone is scraped out and a search made for the fistula which is almost invariably found descending from the cubiform plate of the mastoid antrum downward. Only enough of the soft bone from the bottom of the antrum is removed to admit a small rubber drainage tube. The rest of the diseased portion of the mastoid is removed, care being taken to preserve the antrum box. A infant's catheter is then inserted into the antrum, through its floor and the cavity in the mastoid is packed about the tube with iodoform gauze.

The external auditory canal is also packed with gauze and 50 per cent alcohol dressing applied over the wound, is changed daily. On the third or fourth day the antrum is irrigated through the catheter and on the fifth day the packing is removed. If the auditory canal is dry the tube is removed and from then on the wound is packed loosely until healed.

The advantages of this operation are: (1) Rapidity of healing. (2) Avoidance of ugly disfiguring scars.

(3) The avoidance of large permanent cavity lined by mucosa from the middle ear.

W. LEE H. TAYLOR.

Compartiel: Two Cases of Trepanation of the Labyrinth, Operation and Cure of Falls on Trepanation des Labyrinthes, Operation, Healing. *Diagn. et Trait.* 9: 3, No. 3, 1913.

B. Zetserfeld, 18 rue de la Chapelle, 1, Genoa.

Two cases are reported in which suppurative otitis media involved the labyrinth (rotatory dizziness). At the operation both cases the posterior arch was opened. Uninterrupted recovery resulted. DREWS.

Bellevue: Antral Spades and Angular Curettes. *J. Otol. & Laryngol.* 9: 3, 1913.

By Surg., Gynec. & Obst.

Bellevue has devised the so-called antral spades for the separation of masses of impacted cerumen from the wall of the canal, at one point as the first step in its removal. They are non-cutting instruments, and sufficiently thin to be penetrated in the narrowest chink between the mass and the canal wall, and at the same time are sufficiently strong to permit of considerable pressure on the mass to separate it from the wall. They are to be used only by the experienced and under the control of perfect illumination.

For use in conjunction with Beck's ring curettes, the author has designed series of angular curettes in blunt form for removing cerumen and oxidation and sharp for operating. FARRA B. FOWLER.

SURGERY OF THE NOSE, THROAT, AND MOUTH

Ibbotson. Some Notes on the Treatment of Atrophic Rhinitis by Doriform. *Med. Press & Circ.* 913, xiv 653. By Surg. Gynec. & Obst.

This drug, greenish yellow organic powder was used as 5 per cent (corresponding to iodoforn 1 per cent) suspension in glycerin or olive oil, and applied with swab or spray. It was very effective in trophic linitis, in preventing crusting and osena, and of value in some cases of chronic otitis media. No toxic effects were noted and the author considers it an efficient, odorless substitute for iodoform.

EARLE B. FOWLER

Gabell. An Extrem Example (Unilateral) of the Anterior Cavity Extending Between the Molar Roots. *Proc. Roy. Soc. Med.* 93, vi, Odontol. Sect. 25. By Surg. Gynec. & Obst.

This report is the case of a girl aged twenty whose anterior floor extended 6.5 mm. below the roots of the second molar. Between the roots of the first molar the floor extended down 4.5 mm. completely occupying the space between the lingual and the distobuccal roots which at its part fits all. On the right side the floor did not extend as far as the apices of any of the teeth. There was no history of trauma disease and the wounds healed satisfactorily.

H. A. PORTA

Tilley. An Instrument for Expediting the Examination of Embedded Teeth. *Proc. Roy. Soc. Med.* 93, Laryngol. Sect. 3. By Surg. Gynec. & Obst.

The instrument is shaped like an ordinary Frankel tongue depressor but the distal end is replaced by a small concave bar placed right against the shaft. If the outer portion of the tooth is pressed on, the gland tends to face the observer. Often by this instrument may be expressed septa, accumulation which otherwise might pass unnoticed.

EARLE B. FOWLER

Peters. Cyst of Arytano-Epiglottidean Fold Which Burst Spontaneously. *Proc. Roy. Soc. Med.* 93, Laryngol. Sect. 26. By Surg. Gynec. & Obst.

Symptoms of slight choking and loss of voice grew progressively worse over a period of eight

weeks during which time the cyst could be seen to enlarge. At the end of that time the symptoms cleared up and the serous fluid could be seen coming from the rent in the capsule. The dissection brought out the necessity of using galvanocautery or removing the cyst completely to prevent reilling.

EARLE B. FOWLER

Hopenwell-Smith. The Structure of the Dental Pulp in Ovarian Teratomata. *Proc. Roy. Soc. Med.* 93, vi, Odontol. Sect., 31. By Surg. Gynec. & Obst.

In the discussion of a paper of last year Bland Sutton expressed the opinion that it would be of interest to know if the teeth found in ovarian teratomata possess nerves. The study of specimens which had been fixed in massal formalin, rapidly decalcified, embedded in saturated solution of dex. trine and cut on an ether freezing microtome showed small dimensions of the pulp its outline less regular than the normal organ and varying with the shape of the tooth itself. The pulp is composed of a tissue closely resembling that of normal teeth. It has delicate connective tissue consisting of ramified cells embedded in slightly fibrous stroma and granular transparent basophilic substance, plentifully supplied with blood vessels and nerves. The odontogenic zone is clearly seen, the odontoblasts are short and thick, and the blood vessels run in the direction of the long axis and are accompanied by prominent bundles of medullated nerve fibers which are large in proportion to those of adult teeth.

H. A. PORTA

Von Tappeiner. Tuberculosis of the Gums (Über Zahnfleisch-tuberkulose). *Deutsche Zeitschrift für Zahnheilkunde* 93, xvi 330. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Twenty-six cases of primary tuberculosis of the gums have been reported. Thirty others appeared in cases with pulmonary lesions. The symptoms consist of swelling, sponginess, ulceration and bleeding of the gums. In doubtful cases microscopical examination decides the question. Healing is usually very rapid after radical removal of the diseased tissue. The author describes one case.

KROG

BIBLIOGRAPHY OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

Note.—The bold face figures in brackets at the right of references indicate the page of this issue on which an abstract of the article referred to may be found.

Operative Surgery and Technique

Temperature observations by means of continuous registration. HAUPT Kong. f. inn. Med., Wiesbaden, 93.

Operative technique. A. E. GRAVE. North Am J Homoeop., 93, xxvii, 34.

Fixation of the operativ. feld. GASTROVSKY Russk. Vrach, St. Petersburg 93, xii, N. 30.

Principles and suggestions with regard to the first dressing of wounds. VON ERNSTBERG. Wien. klin. Wochenschr. 93, xxvi, N. 3.

A note on the preparation and use of sepiolite of barium gauze. E. A. R. NEWHAM. Lancet, Lond. 93, clxxv, 704.

Adrenal support for tendon sutures. C. L. HEALD. J. Am. M. Ass. 93, ix, 954.

Early leaving of the bed after laparotomies. KONTSCHEITZ. Munchen. med. Wochenschr. 93, ix, No. 5.

The treatment of granulation of wounds. BERGER. Munchen. med. Wochenschr. 93, ix, No. 5.

Aseptic and Antiseptic Surgery

Notes on the disinfection of the hands. SCOTTLETT. Ztschr. f. Med. 93, xxvi, 530.

The theory of disinfection. P. EUSTACHE and M. OZOUAKI. Zentralbl. f. Bakteriol. 93, ix, No. 5.

Some special hints on disinfection. S. R. KILLEN. Therap. Rec., 93, xlii, 80.

On the question of catgut. CLAUDEL. Fortsch. d. Med. 1913, xxi, 303.

Comment on Felix Hagen article entitled Conservation and Sterilization of Half-Soft Instruments. DOZOR. Ztschr. f. Urol. 93, vii, 378.

Iodine fumigation. BANGUE. J. de med. de Bordeaux, 93, xlii, 45.

Mercuric iodine substitute for iodolene in surgery. D. L. FERNANDEZ. Novelle. Med. St. Petersburg 93, vii, 30.

Anesthetics

Anesthetics and anoxia association. GEO. W. CARL. Surg. Gynec. & Obst., 93, xvi, 637.

The kinetic theory of surgical shock and anoxia-association. GEO. W. CARL. In cont. M. J. 93, ix, 409.

Narcosis. Critical survey of the relations between narcosis and respiration of oxygen. HANS WITTEWITZ. Biochem. Ztschr. 93, 4, 43.

Theoretical considerations on mixed narcosis. Counter reply to the reply of Blythe on Combination of Narcotics. GASTROVSKY. Ztschr. f. allg. Physiol. 93, xv, 49.

Oxygen and anesthetics. F. B. McLEACHAN. Internat. J. Surg. 93, xvi, 303.

Nitrous oxide and oxygen anesthetics. E. M. PARCE. Surg. Gynec. & Obst. 93, xvi, 6.

Further report on nitrous oxide-oxygen anesthetics. SCOTTLETT. Lancet, Am. J. Surg. 93, xxvii, 22.

The effect of chloroform narcosis upon the protein metabolism, contributions to the pH ecology of the thyroid gland. ELSA USTER HANSEN. Arch. f. d. ges. Physiol., 93, clx, 30.

A new procedure for ether drops. NOWIKOFF. Russk. Vrach, St. Petersburg 93, xii, No. 9.

A simple method of drop-calibration narcosis by the aid of gaseous compresses. NOWIKOFF. Russk. Vrach, St. Petersburg 93, xii, 683.

Anesthetics by means of infiltration in oto-rhino-laryngology. JACQUES. Rev. med. de l'est, Nancy 93, xiv, No.

Anesthesia by intratracheal insufflation from the physiological and clinical standpoint. F. COTTON and W. BOUQUET. Clin. Med. 93, xii, 30.

Results obtained with intratracheal insufflation after Meltzer method. STROM. VAN LEEUWEN. Nederl. Tijdschr. Geneesk. 1913, xlv, N. 5.

An artificial airway for surgical anesthesia. ROMER. H. HINCKHOFF. J. Am. M. Ass. 93, ix, 833.

Textbook of local anesthetics for students and physicians. GROSS. HINCKHOFF. Wiesbaden, Bergmann, 93.

Anesthesia of the brachial plexus after the method of Kalkenkampff. P. BARTHEZ. Vrach. Gaz. St. Petersburg 93, ix, 68.

Exposure of the nerves in anesthesia of the solar plexus. M. HINCKHOFF. Zentralbl. f. Chir. 93, xl, 766.

Exposure of the solar plexus. N. I. BIKER. Zentralbl. Chir. Arch. Veltmanova, St. Petersburg 93, xii, 308.

Spinal anesthesia. BARTHEZ. J. med. de Brux. 93, xii, No.

The popular lecture on spinal anesthesia by tropococaine with review of 295 cases. J. T. J. MONTAGNE. Brit. M. J. 93, 3738.

Experiences with tropococaine spinal anesthesia. S. THORNTON. Sci. J. Kwan. M. J. 93, xxi, No. 6.

Spinal anesthesia by means of novocaine. LIPKOWITZ. J. d. ac. med. de Lille. 93, xxv, N.

Experiments in regard to the methods of using novocaine solutions. G. M. VETTER and STROM. Arch. f. d. ges. Physiol. 93, cxiii, 5.

The combined tropococaine-pain opium narcosis. J. P. SALTSHOFF. Novelle. Med. St. Petersburg 93, vii, 32.

The laryngeal gland in surgical anesthesia. L. T. ROTTERFORD. Brit. M. J. 93, 3738.

Surgical Instruments and Apparatus

Improved device for illuminating the operating room. WILLARD BARTHEZ. J. Am. M. Ass. 93, ix, 845.

A new lamp for use in diaphanoscopy and endoscopy
HAYS REUTER. *München. med. Wchnsch.* 9 3, ix, 545.
Some simple attachments for electric hand lamps.
F. H. VERNON. *Ophth. Rev.* 9 3, xii, 398.
A radiographic apparatus which can be transported on
the automobile. HAZARDY. *Arch. d'électr. méd. exp. et
clin., Bordeaux.* 9 3, xii, N. 360.
Operating table for chiropodists. C. G. DWIGHT. *J. Am.
M. Ass.* 9 2, ix, 95.
Fracture and orthopedic table. G. W. H. WILEY. *J.
Am. M. Ass.* 9 3, ix, 850.
Description of simple apparatus for the application of
plaster jackets in hyperextension. PARCOTT L. B. BRITON.
Buffalo M. J. 9 3, ix, 636.
A new sterilizer for instruments, which has number of
compartments and automatically insures sufficient steriliza-
tion. GRAY. *Spezial. Deutsche med. Wchnsch.* 9 3,
xix, 949.
An apparatus for the sterilization of liquid soap, an
apparatus for the sterilization of brushes. A. GELINCO.
J. de l'or de Bucarez 9 3, i, No. 2.

A modified La Forge adenotome and its use. B. F.
BREWER. *Ohio St. M. J.* 1913, ix, 80.
A simple cannula for puncture, injection and infusion.
F. LOTTECH. *Zentralbl. f. Chir.* 9 3, xi, 908.
A new tonsil-snare. L. D. GRAY and A. S. GRAY.
J. Am. M. Ass. 9 3, ix, 8013.
New tonsil clamps. M. D. STEVENSON. *J. Am. M. Ass.*,
9 3, ix, 8044.
A new gastro-intestinal clamp. V. V. V. V. *Zentralbl.
f. Chir.* 9 3, xi, 953.
A new abdominal compress. TRAFOIA. *Grèce méd.*,
9 3, xv, No. 9.
A universal douche attachment for cystoscopes. A.
LAWRE. *Ztschr. f. Urol.* 19 3, vii, 387.
Double vulvotomy cervix forceps. H. F. D. *J. Am.
M. Ass.* 9 3, ix, 953.
The Antidor, new instrument for the dry treatment
of vaginal catarrh. LIEPMANN. *München. med. Wchnsch.*
9 3, ix, 383.
A new mounted speculum for use in laparotomies.
E. KAUFF. *Zentralbl. f. Gynäk.* 9 3, xix, 903.

SURGERY OF THE HEAD AND NECK

Head

Primary purulent inflammation of the salivary glands
in early infancy. JULIUS LARON. *Arch. f. Kinderh.* 9 3,
ix, 40.
A case of salivary calculus in Wharton's duct. review of
subject. L. R. B. in Indianapolis M. J. 9 3, xvi, 3.
Tumors of the salivary glands. HANSEN. *Arch. f. Kinderh.*
Eryth. d. Chir. *Orthop.* 9 3, vii, 290.
Traumatic facial hemiparesis. T. TORRES. *Bull. et
mem. Soc. de chir. de Par.* 9 3, xix, 906. [381]
My experience with the treatment of neuralgia of the
trigeminal nerve by injections of alcohol. OYSTER. in
Nederl. Tijdschr. Geneesk. Amsterdam, 9 3, i, N.
The cosmetic correction of paralysis of the facial nerve
by means of transplantation of fascia. STREIB. *München.
med. Wchnsch.* 9 3, ix, No. 5.
Cosmetic improvement of the deformities caused by
paralysis of the facial nerve. BUCHS. *Ztschr. f. Otolaryng.*
u. f. d. Kroatik d. Larynx. 9 3, ix, Nos. 2-4.
Treatment of neuralgia and facial spasm by nerve
injections. H. CAMPBELL. *Practitioner Lond.* 9 3, ix,
99.
The treatment of facial paralysis by nerve transplants
tion. STREIB. H. W. ITS. *Old Dominion J. M. & S.*
9 3, xvi, 39.
Some osteocutaneous operations for the treatment of facial
neuralgia, preauricular resections, excision of retro-
auricular neurotomy. DE BECKE. *J. de chir. belge, Brux.*
9 3, xii, N. 5.
Partial resection of the inferior maxilla by the buccal
path of access in cases of cancer of the alveolar part of the
maxilla. G. ULL. *Rev. heb. de laryngol. d'otol. et de
rhinol. Bordeaux.* 9 3, xix, N. 24.
Unilateral temporomaxillary ankylosis, diagnosed by
the aid of radiography: aponeurotic graft to prevent
recurrence. DEBACQUERRE. *Echo méd. du nord, Lille.*
19 3, xvi, N. 44.
Lateral operation for malignant tumors of the upper
maxilla. F. KUNZ. *Deutsche med. Wchnsch.* 9 3,
xix, 934.
Prothèses of the nose. BRUNO KILBY. *Oesterreich.
weger Vierteljahrschr. f. Zahnheilk.* 9 3, xix, 79.

Paraffin prosthesis and nasal deformities. LAGARDE.
J. de méd. de Par. 9 3, xix, 4 2.
Endothelial sarcoma of the temporal bone. ESTEYER.
Arch. St. Petersb. 9 3, xi, No. 9.
Sarcoma of the petrous portion of the temporal bone in
child of five years: propagation to the cerebellar meninges
and to the roots of the mixed nerves of the base. CAUDET
DUBREUIL and DUBREUIL. *J. de méd. de Bordeaux* 9 3,
xiii, No. 24.
Operation for extensive tumors of the base of the skull.
SCHROEDER. *Frank. med. Wchnsch.* 19 3, xix, No. 26.
Cranial deformities associated with ocular symptoms.
LARSSEN. *Hjelp Tid. Kjøbenhavn* 9 3, vii, No. 3.
Perforating wound of the cranium caused by revolver
bullet: craniomeningocele: recovery. DIER KOLLEK.
Grèce méd., Athens. 9 3, xv, N. 7.
The limitations and possibilities of X-ray skull diagnosis.
GEO. EARL. *J. Laryng.* 9 3, xix, 907. [381]
The Röntgen ray as an aid in the diagnosis of fractured
skulls. Wm. H. STEWART. *Am. Quart. Rheing.* 9 3,
iv, 7.
The diagnostic evidence obtained by X-rays from the
lateral aspect of the skull with especial reference to the
base and its adnexa. FRANK BROWN. *Boston M. & S. J.*
9 3, xix, 383.
Traumatic epilepsy. MARCHAND. *Clinique Par.* 19 3,
vii, 5. [382]
A contribution to the pathological surgery of J. chaotic
epilepsy in animals. GERM. VONTRICH and SARTORIUS. *Char.
Lofsky med. J.* 9 3, xv, 27.
Permeability of the meninges. WEIL and KAPPA.
Deutsche Ztschr. f. Nervenh., Leipzig. 9 3, xiv, No. 4.
Permeability of the meninges. ZATSEVICH. *Deutsche
Ztschr. f. Nervenh., Leipzig.* 9 3, xiv, No. 4.
Experimental researches on the plexus choroides and the
meninges. GOLDMANN. *Arch. f. Klin. Chir.* 9 3, d,
No. 3.
Primary neoblastomatosis of the pia mater. K. J.
SCHROEDER. *Frank. Ztschr. f. Path. Weich.* 9 3, xii, 77.
A case of neoblastic tumor. VONKRA and POPEL.
Spezial. Bacteriol. 19 3, xix, No. 8.
Serous meningitis. L. E. GREENMAN and G. KATZOWSKI.
Monatschr. f. Psychiat. u. Neurol. 9 3, xix, 383.

Some remarks on meningitis. His report of two fatal cases in which Haines operation performed. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Prognosis and treatment of meningitis. RABOW. *Albion. med. Wechschr.* 9, 3, 12, No. 5.

Investigations in regard to the relation of certain tissue reactions to the early diagnosis and surgical treatment of meningitis. KOWATZKY. *Zentrbl. f. Chir.* 9, 3, 21, 860.

The atrophic change of dorsal defects. KAWATZKY. *Abhandl. d. Naturf. u. Med. Gesellsch. Zürich* 1882.

The technique of arresting hemorrhage from the sinus of the brain. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of idiopathic hydrocephalus in an adult. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

The surgical treatment of hydrocephalus. R. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Fracture of the occipital calvarium. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Phenomena of cerebral hypertension and their surgical treatment. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

The cure of traumatic ventricular aneurysm. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

The anatomical study of the endostoma of the brain. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis and surgical treatment of some brain diseases. Z. B. 904. *Physician & Surg.* 9, 3, 207, 24.

Cerebral aneurysms with localization symptoms. Report of three cases recovered following surgical treatment. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Diagnosis of the right cerebral hemisphere. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Tumor of the cerebellum. S. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of tumor of the cerebellum developing after slight trauma. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Another case of tuberculous of the cerebellum. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Contributions to the histology of the human pituitary gland. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Affections of the pituitary gland. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A tumor of the pituitary gland or of the cerebral epiphysis. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of infarction associated with hypophyseal tumor. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A new path of access for interventions on the hypophysis. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

A new surgical method for the removal of the hypophysis. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Operations on the hypophysis by the nasal path, account of personal case. H. W. 904. *Physician & Surg.* 9, 3, 207, 24.

Neck

It is always possible to find the facial trigeminal nerve. A. P. 904. *Physician & Surg.* 9, 3, 207, 24.

Abcess of the deep cervical fascia. A. P. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

A case of actinomycosis of the neck treated by subcutaneous injection of iodine. F. 904. *Physician & Surg.* 9, 3, 207, 24.

applied to the ovaries. MANOWSKO. Wien. klin. Wchnsch. 93 xvi 693.
The operative treatment of Basedow's disease. SCHLO. Präg. med. Wchnsch. 93 xxviii, 33.

Euphthalmic goiter: hyperthyroidism. W. B. WEID-
LER. N. Y. M. J. 93, civil 403.
Hyperthyroidism and its treatment. STUART MCGUIRE.
Va. M. Semi-Month. 93 xviii 05.

SURGERY OF THE CHEST

Chest Wall and Breast

The internal secretion of the mammae. ALBRECHT.
Deutsche Gesellschaft f. Gynäk. Halle. 93 M. [335]
Pathological and clinical contributions on cancer of
the breast. ALBERT SALOMON. Arch. f. klin. Chir. 93,
ch. 578.

Cancer of the breast and hematic secretion. Case of
bleeding breast. PUZZO MORRISON. 93 IV N. 5.
Successful removal of an alveolar carcinoma of the
breast by the Halstead method. JOSEPH D. FARRAR.
Penn. M. J. 93 xv 704.

The problem in local recurrent breast cancer. C. W.
SHERBELL. N. Y. M. J. 93, civ. 76.
Paget disease of the breast. ALBERT SALOMON. Chir. Arch.
Vallentun. 93, xxv, 316.

Tuberculosis of the breast. A. D. KAPLA. Chirurgia.
93 xxvii 5.

Bossing of the thoracic precordium. All in cert. as effect
ions of the heart. Report of case. J. L. MANN. Va. J.
Surg. 93 xxvii, 10.

Intra-capsular thoracic amput. case. J. PETER. Chirurg.
93, xxvii 444.

Intercapular thoracic amputation of the shoulder. Com-
m. B. CANNON. Ann. Surg. Phila. 93, 1, 96.

Multiple fractures of the clavicle and the shoulder blade
fracture and luxation of the shoulder. M. TITI. M. A. I. T. V.
Laval and Rouen. Laval. M. A. I. T. V. 93, 1, 1.

Double luxation of the clavicle. KAMPT. Med. Klin.
93, ix, N. 5.

Fractures of the clavicle. DELBA. J. d. praticiens,
Par. 93, xxvii, N.

Congenital cysts of the axillary region. H. L. ROUX.
Enlance. 93, 4, 346.

A report of several cases of pulmonary tuberculosis
treated by artificial pneumothorax. H. L. BAXTER and F.
T. CILVER. Boston M. & S. J. 93, civi, 97.

Indications and technique for artificial pneumothorax
in pulmonary tuberculosis. A. ST. VINCEN. Verband. d.
Ver. d. Ärzte d. Stadt Obachow-Kirk. 5.
Petersb. 93, xvi, 27.

Artificial pneumothorax for pulmonary hemorrhage.
A. ST. VINCEN. Verband. d. Ver. d. Ärzte d. Stadt
Obachow-Kirk. St. Petersburg. 93, xvi, 34.

Experimental studies in the treatment of pneumothorax.
What effect does unilateral pneumothorax have on the
tuberculous phenomena. Look follow intravenous and
intratracheal infection. H. SCHULZ and S. SCHULZ. Pflüger.
Arch. f. exp. Path. Therap., 93, xiv, 478.

The treatment of closed pneumothorax by means of
aspiration and hyperpressure. G. SCHULZ. Zentral-
bl. f. Chir. 93, xi, N. 3.

Emphysema in infancy. F. T. ZYLL. Ergänz. d. m. n.
Med. u. Kinderh. 93, xi, 6.

A case of chronic emphysema cured by resection of the ribs
and decortication of the lung according to Delorme.
D. SCHULZ. Chirurgia. 93, xxvii, 407.

Recurrent parietal pleurisy. COMA. Arch. de méd. d.
enfants, Par. 93, xvi, No. 6.

Chronic mediastinitis following osteomyelitis of the
sternum. Report of case and operation. IL. M. ARM.
Ark. N. Y. M. J. 93, xvii 244.

Two cases of primary tumors of the mediastinum.
TARTAGLIA and ROSSINI. Gaz. d. hosp. Par. 93, lxxvii,
No. 68.

X-ray diagnosis of tuberculosis of the bronchial glands in
children. N. URBAN. Fortsch. a. d. Geb. d. Röntgenstr.
93, ix, No. 4.

Trachea and Lung

Tracheobronchoscopy after the method of Killian.
N. URBAN. Russk. Vrach. 93, xii, 790.

Two cases of death in bronchoscopy extraction of foreign
bodies. H. URBAN. Ztsch. f. Ohrenh. u. f. d. Kranzh. d.
Lufte. 93, lxxvii, No. 2.

Experiences in surgery of the upper respiratory and
alimentary tracts. GLOCK. Berl. klin. Wchnsch. 93,
1, 33.

Primary cancer of the lung. WICKOWSKI. Wien. klin.
Wchnsch. 93, xvi, N. 56.

A case of rupture of bullet wound of the pulmonary
artery. GEORG M. A. I. T. V. Med. Cor. Bl. d. wittenb.
Arch. Landwehr. 93, lxxvii, 333.

Total pulmonary embolism as cause of post-operative
death. PETER. Beitr. z. klin. Chir. 93, lxxvii, No. 3.

Operative treatment of pulmonary embolism. SCHULZ.
Arch. f. klin. Chir. 93, ci, N. 3.

Modifications of the functioning of the diaphragm during
pulmonary emphysema. H. URBAN and B. URBAN. Progr.
med. Par. 93, xiv, N. 5.

Heart and Vascular System

Direct massage of the heart. WANDT. Arch. f. klin.
Chir. 93, ci, No. 3.

Massage of the heart in chloroform syncope. GROV.
Pract. M. exp. Roma. 93, m, 304.

Automatic rupture of the heart. P. TARTAGLIA. Pract.
Vrach. St. Petersburg. 93, xii, No. 2.

Conservative cardiac surgery. MAX VON ARX. Cor.
Bl. f. sch. ex. Arzt. 93, lxxvii, 77.

Treatment of pericarditis. 1st posterior extravasation.
GOMEX. Progr. med. Par. 93, xiv, N. 3.

Extravasations of the pericardium. R. TARTAGLIA. Arch.
med.-chir. de Province. Poitiers, 193, viii, N. 5.

Posterior drainage of the pericardium and the pleura.
TARTAGLIA. Zentralbl. f. Chir. 93, xi, No. 25.

The surgical treatment of pericarditis. KOLA. Berl.
klin. Wchnsch. 93, i, No. 3.

A case of aortic aneurysm of the thoracic aorta.
ROMANOWSKI. Polichn., Roma. 93, iv, No. 1.

The X-ray diagnosis of thoracic aneurysm. R. D. CAR-
MA. J. Mo. St. M. Am. 93, ix, 340.

Pharynx and Oesophagus

Examination of the hypopharynx and of the orifice of
the oesophagus. BOCCA. Ann. d. mal. de l'oreille du
larynx du nez et du pharynx, Par. 93, xxvii, No. 3.

Cyst of epithelial lining of the oesophagus from case of chloroform poisoning. G. N. BOOS. *Proc. Roy. Soc. Med.*, 9, 3, vi. Laryngol. Sect. 3. [1916]

Occurrence of the oesophagus by an intestinal nodule. DEJANGLER, WITTE and GAUTHIER. *Marseiller med.* 9, 3, 1, No. 2.

Foreign bodies in the oesophagus: two cases of rare complications. GANTZ. *Med. i kron. lek.* 9, 3, xlvii, Nos. 24 and 5.

The removal of foreign body from the oesophagus without making lateral incision in the neck (tracheotomy lateral). FELIX FRANCK. *Deutsche med. Wochenschr.* 913, xxxix, 143.

Iodophoric dilatation of the oesophagus and Zenker's pharyngo-oesophageal pouch diverticulum. (GROSSMAN). *Forsk. lek.-allsk. handl. Helsingborg*, 9, 3, 1, No. 5.

Diagnosis and treatment of oesophageal stenosis of the

oesophagus. GOSSEL. *Arch. d'Elect. med., exp. et clin.*, Bordeaux, 19, 3, xii, No. 360.

A carcinoma of the oesophagus on dysontogenetic basis. GRABOWSKI. *Beltr. path. Anat. u. z. allg. Path. Jena*, 19, 3, lvi, No.

Experimental contributions on surgery of the oesophagus. HONKING and MAURUS. *Med. Klin.* 9, 3, ix, No. 21.

Thoracic oesophagotomy; report of case. J. Y. BARRAT. *Can. St. J. Med.*, 9, 3, xi, 5.

Pharyngectomy for epithelioma: recovery lasting three years. ASSOCIATION. *Bull. med. de l'Algérie Alger* 1912, xiv, No. 0.

The first successful case of resection of the thoracic portion of the oesophagus for carcinoma. TONER. *Surg., Gynec. & Obst.*, 9, 3, xvi, 6, 4. [1916]

The surgical treatment of carcinoma of the oesophagus. MATTEN. *München med. Wochenschr.* 9, 3, li, N. 24.

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Longitudinal or transverse incision? HELLERDAL. *Zentralbl. f. Gynäk.* 19, 3, xxxvi, No. 5.

Fluoroscopic aid: modern technique: advantages and operative indications. SERRAVAL and EAGLE. *Can. d. Med.*, 19, 3, xxxvi, N. 64.

A case of emphysema in laparotomy cicatrix. MARIO BOUQUIN. *Morgagni*, 9, 3, iv, 76.

The question of abdominal drainage. J. J. WEIDSTEIN. *J. Indiana St. M. Ass.*, 9, 13, 1, 58.

Fibroma of the abdominal wall. DEUDING and MARIY. *Toxicol. med.*, 9, 3, xv, N. 10.

A pedunculated serous tumor of the wall of the region of the umbilicus. KETTER. *Deutsche Gesellschaft f. Gynäk. Halle*, 9, 3, May. [1917]

Retroperitoneal hemato-ascitic cystic lymphangoma. GUTHRIE and GOSSET. *Pross. med. Par.* 9, 3, xxi, N. 46.

Intimate relations of the peritoneum to the uterine musculature. LA TORRE. *Arch. mens. d'obst. et de gynéc.* Par. 9, 3, N. 5.

Peritoneal adhesions of the mesothelial tissue group. R. T. MANN. *Med. Herald*, xxxi, 109.

Biliary peritonitis without perforation of the bile passages. MACQUEEN. *Thèse de doct. Par.* 9. [1917]

Remarks on the contribution of Prof. N. Iversen and Dr. Lobos on Does. Biliary Peritonitis. Ernst. *Abstr. Per.* 1917, 10.

Peritonitis. HENRI LIEBOWITZ. *Deutsche med. Wochenschr.* 913, xxi, No. 188.

Peritonitis. HENRI LIEBOWITZ. *Deutsche med. Wochenschr.* 913, xxi, No. 188.

Tubercular peritonitis. GERRARD. *München med. Wochenschr.* 9, 3, li, 649.

Two cases of tuberculous peritonitis treated by lepto-therapy. A. CANTILLANA. *Proctina*, 913, xxi, 240.

Camphorated oil in peritonitis and abscesses of the cul-de-sac of Douglas. BLANCHET. *München med. Wochenschr.* 9, 3, li, No. 3.

Development and use of modern surgery in peritonitis. O. TOL. *Arch. f. Kinderk.* 9, 3, li, May.

The origin of tumors of the peritoneum (epithelioma plastica). ERICH HOLLANDER. *Deutsche med. Wochenschr.* 9, 3, xxxix, 843.

Pseudo-epithelioma of the peritoneum of appendicular origin. DELBART. *J. de chir. belge*, Bruxelles, 19, 3, xxi, No. 5.

Angioplasty surgery of the peritoneum by the employment of pedunculated flaps. JIANO. *J. de chir. de Bordeaux*, 9, 3, li, No.

The etiology of hernias. PAUL REBERSTEIN. *Med. Reform*, Berl. 913, xxi, 36.

Röntgenological demonstration of diaphragmatic invagination. K. KATZER. *Fortachr. d. Geb. d. Röntgenstr.* 9, 3, xi, 20.

Hernia in infancy and childhood. D. von ROSE. *J. Indiana St. M. Ass.*, 9, 3, vi, 70.

Cooper's hernia. A. P. KRYSTON. *Arch. f. klin. Chir.* 9, 3, ci, 565.

A case of strangulated crural hernia associated with hernary appendicitis. LAMOT. *Rev. med. d. Rouen*, Rouen, de Saint-É. 9, 3, vi, N. 2.

Permanent results of operations for strangulated crural hernia. ROSENFELD. *Beltr. Klin. Chir.* 9, 3, lxxv, No. 1.

Incarcerated hernia associated with acute haemorrhoids. M. N. W. Igulu-Chewo-Zard. 9, 3, No. 50.

Retrograde incarceration, hernia. W. W. WALTER. *Wien. Ergebn. d. Chir. Orthop.* 9, 3, vi, 336. [1916]

A case of spontaneously incarcerated diaphragmatic hernia of the stomach, the spleen and loop of bowel. SWERDLOFF. *Moscow Med. J.*, 9, 3, April, 217. [1917]

A case of diaphragmatic hernia in phthisic adult. MILLERSON. *Ugsk. f. Leger Kijebsh*, 19, 3, lxxv, No. 66.

A new method of treating scaphoid hernia. J. H. PRINCE. *Edinb. M. J.* 9, 3, 2, 491.

Inguinal hernia—a result of an accident. RECH. *Ztschr. f. Verwundungswund.* 9, 3, vi, 48.

The choice of operation for inguinal hernia. E. O. STROBER. *St. Paul M. J.* 9, 3, xv, 300.

New operation for the cure of indirect inguinal hernia. U. C. BATES. *J. Am. M. Ass.* 9, 3, li, 303.

The radical operation for scaphoid hernia with incomplete hernial sac. SCHMIDT. *Deutsche Ztschr. f. Chir.* 1913, cxvii, 766.

Radical operation for hernia under coccyx analpexia, expansion in warty-like mass. R. G. S. VIL. *W. M. M. J.* 9, 3, xxi, 13.

Anatomical studies: material for use in herniotomy operations. GULYAYEV. *Zentralbl. f. Chir.* 9, 3, xi, 905.

The functions of the operation and practical consequences which develop from their study. OUTERRECH. *Rev. Ibero-amér. de chir. med.*, Madrid, 19, 3, xxi, No. 109.

- The importance of the omentum from the physiological and pathological point of view. GUNDERMANN Beitr. klin. Chir. 9 3, lxviii 387.
- Sarcoma of the omentum. M. A. TARR. Am. J. Obst. 1900.
- N. Y. 9 3, lxvii, 42.
- Cystic lymphangoma of the mesentery. D. RÖDER. Beitr. z. klin. Chir. 9 3, lxviii 2.
- Chylous cyst of mesentery. A. L. BERNHARDT. Surg. Gynec. & Obst., 9 3, xvi, 666.
- Thrombosis of the mesenteric artery. ERNEST LAPLACE. Paris M. J. 9 3, xvi, 699.
- The surgical aspects of persistent Meckel's diverticulum. HAMILTON DUNHAM. Surg. Gynec. & Obst., 9 3, xvi, 676.

Gastro-Intestinal Tract

- The position and form of the normal human stomach. PATTISON. Brit. M. J. 9 3, i, 305.
- A note on the shape of the normal empty stomach. J. S. B. STORROW. Brit. M. J. 9 3, i, 306.
- Movements of the stomach, the pylorus and the duodenal bulb. CANNON. Paris méd., 9 3, No. 39.
- Functional diagnosis of stomach diseases after Sahli's method. ZWITERNY. Deutsche Ztschr. f. Chir. 9 3, cxviii, Nos. 5-6.
- Röntgenoscopic examinations versus clinical methods in the diagnosis of gastric disease. J. D. DUCHANE. Med. Rec. 9 3, lxviii, 666.
- The röntgenological behavior of the stomach in gastric crises and in vomiting. CRYSLER and SELL. Wien. klin. Wochenschr. 9 3, cxvii, N.
- Acute dilatation of the stomach and its treatment. O. BOSCHGUTENBERG. Surg. Gynec. & Obst., 9 3, xvi, 66.
- Gastric dilatation: its treatment by removal of gastric contents, starvation and rest in bed. ARTHUR FRICK. J. Am. M. Ass., 9 3, ix, 859.
- Histological examination of the mucous membrane of the stomach in ulcer and cancer of the stomach. HATZIKOVY. Deutsche Ztschr. f. Chir. 9 3, cxviii 359.
- The etiological relationship between liver and cancer of the stomach. G. D. REAN. J. Labret, 9 3, xcix, 30.
- The relations between carcinoma and peptic ulcer of the upper digestive tract. GRIFFER. Ztschr. f. Krebskrankh. 9 3, xlii.
- Ulcer of the stomach. SAM C. SLOCUM. Med. Sentinel, 9 3, xlii, 967.
- Recent ulcer of the stomach. CRAMER. Ztschr. f. Brill. Fortbild. 9 3, 4, 333.
- The perforated gastric ulcer. SCHMID. Zentralbl. f. Chir. 9 3, xl, 90.
- Perforating ulcers of the stomach and duodenum. J. MOWLEY. Practitioner Lond., 9 3, xc, 99.
- A report of six cases of acute perforating ulcer of the stomach. G. M. COLEMAN. J. Am. Med. Assoc. 9 3, 53.
- An extremely rare case of perigastric hematoma as secondary symptoms of perforation of gastric ulcers. MEYER. Arch. f. Verdauungskrankh. Berl. 9 3, xvi, No. 3.
- Results obtained with the internal treatment of ulcer of the stomach, or of the duodenum, associated with congenital medullary K. PERATH. K. LEWISMASSON and J. THOMAS. Mitt. d. Grenzgeb. d. Med. Chir. 9 3, xvi, 56.
- The administration of ox bile in the treatment of hyperacidity and of gastric and duodenal ulcer. F. W. PALMER. Am. J. M. Sc. 9 3, cxlv, 796.
- Methods of diagnosis in gastric cancer. J. M. FORTES. Brit. Med. J. 9 3, xvi, 68.

- Gastric achylia and its value for the diagnosis of cancer. SCHMIDTKE. Arch. f. Verdauungskrankh., Berl., 9 3, xvi, No. 3.
- A contribution to the surgery of gastric carcinoma, report of 613 cases observed by Prof. Wölfler between 1895 and 9. ALBRECHT. Beitr. z. klin. Chir. 9 3, lxviii 4.
- Palliative operations for the relief of incurable carcinoma of the stomach. W. J. MARY. St. Paul M. J. 9 3, xv, 369.
- Mycoma of the stomach, 1st report of case terminated fatally by hemorrhage. C. B. FARR and ROSE. A. GLENN. N. Y. M. J. 9 3, xcvi, 26.
- Painful occlusion in bilious stomach. CLEGG. Mississippi méd., 9 3, iv, 248.
- A case of bilious stomach, diagnosed by means of radiography and operated by the method of gastro-anastomosis. VIGAND. Arch. prov. de chir., Par. 9 3, xlii, No. 4.
- Constipation, headache, and other constitutional states in relation to displacements of the stomach and colon. CHAS. A. L. RIZZO. Ohio St. M. J. 9 3, ix, 265.
- Gastrocolic fistula, with clinical and röntgenological findings. RUDOLF NEUMANN. Fortsch. a. d. Geb. d. Röntgenstr. 9 3, xii, 393.
- Operative stenosis of gastric fistula by means of transplantation of fascia. HÄCKER. Zentralbl. f. Chir. 9 3, xl, N.
- Technique of the suture in gastrostomy after Witzel. KAJUKOW. Arch. f. klin. Chir. 9 3, cl, No. 3.
- Anterior gastro-enterostomy. D. C. BAILEY. Am. Surg. Phila., 9 3, lvi, 903.
- Resection of the stomach. ALFRED PIER. Deutsche med. Wochenschr. 9 3, xcix, 143.
- The technique of resection of the stomach and large intestine. GALLIGHER. Zentralbl. f. Chir. 9 3, xl, 713.
- Simultaneous resection of the stomach and transverse colon. M. GOUTLIVON. Lyon chir. 9 3, ix, 473.
- Excision of the pylorus by constrictive measures. BACCHIO. Clin. chir. 9 3, xli, No. 5.
- Excision of the pylorus by means of detached band of aponeurotic fascia or tendon. NASHKILL. Clin. chir. Milano, 9 3, xli, No. 3.
- Ligum and closing of the pylorus with omentum. MOWAT. Deutsche med. Wochenschr. 9 3, xcix, 996.
- The case prepylorica. SARRMENTO. Rev. Soc. méd. argent., 9 3, xli, 268.
- Duodenal ulcer. HÄCKER. Zentralbl. f. Chir. 9 3, xl, 90.
- A case of duodenal ulcer. VAGUE. Rev. ibero-amér. de med. Madrid, 9 3, xcix, N. 5.
- The positive diagnosis of duodenal ulcer by means of the Röntgen ray. GEORGE W. ABRAHAM and ISAAC GINSBERG. Am. Quart. Röntgen. 9 3, iv, 57.
- Duodenal ulcer of the hemorrhagic form. CASTAGNOL. Paris méd. 9 3, vii, No. 24.
- Ulcer of the duodenum and cholelithiasis. ORTIZ. Paris méd. 9 3, No. 7.
- New instruments for the duodenum and small intestine. M. EINIKOFF. Med. Rec. 9 3, lxviii, 9.
- Duodeno-jejunal hernia in sucklings. E. VOGT. Monatschr. f. Geburtsh. u. Gynäk., 9 3, xcvi, 87.
- Radical operation for post-operative peptic ulcer of the jejunum. HÄCKER. Arch. f. klin. Chir. 9 3, cl, No. 3.
- Simple ulcers of the jejunum-ileum. CADÉ, ROCHER and MARTIN. Progrès méd. Par. 9 3, xlv, No. 24.
- Gall stones producing pyloric and jejunal obstruction. W. W. VAN BARCLOCK. N. Y. M. J. 9 3, xcvi, 69.

Suprapubic fistula after post-typhoid suppurative cholecystitis; cholecystectomy; recovery with persistence of the bacilli in the stools. JACOB. *Bull. et mens. Soc. de chir. de Par.* 9 3, xxxix, 879. [485]

Formation of an artificial choledochus by means of drainage tube. FRIEDL. *Deutsche Ztschr. f. Chir.* 9 3, cxvii, 33.

The employment of the omentum for hemostasis in extirpation of the gall bladder. L. STODARY. *Verhandl. d. wiss. Ver. d. Ärzte d. städt. Obdachow Krkhs. St. Petersburg.* 9 3, cxvii, 49. [483]

Inhibitive action of bile on bacilli coli. E. O. JORDAN. *J. Infect. Dis.* 9 3, xli No. 3. [485]

Primary carcinoma of the ampulla of Vater. ROGER and LAFITTE. *Arch. d. mal. de l'appareil digest. et de la suite.* Par. 9 3, vii, N 9.

Biliary tumors of the bile-ducts. BARRY BOWEN and BLATT. *Lyon chir.* 9 3, ix, N 6.

Typhoid infection of the bile-ducts in spleens of the gall-bladder. STOR. *Zentralbl. Woch. klin. Wchsch.* 9 3, cxvii, 704.

Abscesses of the bile-ducts. LEBRONNET. *Presse méd.* Pa. 9 3, xxi, N 40.

Diagnosis and treatment of affections of the pancreas. ALMER. *Woch. Berl. allg. med. Verl.-Anst.* 9 3.

Affections of the pancreas and their treatment. SOREBY. *Pract. Vrach. St. Petersburg.* 9 3, xli, Nos. 8 and 10. Sub-acute hemorrhagic pancreatitis. Intervention cure. VINCIG and M. CHY. *Bull. méd. de l'Algérie Alger.* 9 3, cxv, No.

Three cases of acute pancreatitis. KOLLOVEY. *Russk. Vrach. St. Petersburg.* 9 3, xli No.

Diagnosis and treatment of acute pancreatitis. VON RATTEN. *St. Petersburg med. Ztschr.* 9 3, cxvii, No.

Pancreatic cyst. R. C. BRY. *La. M. Semi-Monthly.* 9 3, cxvii, 4.

Effects of ligation of the pancreatic duct in the rabbit. WATKINS. *Nederl. T. v. d. Geneesk. Amsterdam.* 9 3, l, No.

A case of free transplantation of the omentum in stab wound of the spleen. LAFITTE. *Verhandl. d. wiss. Ver. d.*

Arzte. d. städt. Obdachow Krkhs. St. Petersburg. 9 3, xli, 3. [486]

The hemostatic action of the adipose tissue in wounds of the abdominal viscera. PODIVOVY and LADYJEV. *Vrach. Gaz. St. Petersburg.* 9 3, xli, No. 11.

Giant tumor of the spleen. FRIEDRICH. *Monatschr. f. Geburtsh. u. Gynäk.* 9 3, cxvii, 5.

Contribution to the knowledge of Banti's disease. GRUTVICH. *Beitr. z. klin. Chir.* 9 3, cxvii, 3.

Banti's disease in childhood. In cases of the disease in earliest infancy. D'ESTRINE. *Arch. f. Kinderh.* 9 3, li-xi, May.

A case of Banti's disease of biliary origin. DUBET. *Rev. clin. de Madrid.* 9 3, li, 379.

Modern surgery of the spleen. F. MICHELSON. *Engelb. d. Chir. Orthop.* 9 3, vi, 430. [486]

Splenectomy in malarial affection of the spleen. KORNILOV. *Arch. f. klin. Chir.* 9 3, cx, No. 2.

Clinical observations concerning twenty-seven cases of splenectomy. H. Z. GUTTEN. *Ann. J. M. Sc.* 19 3, cxv, 78. [487]

Extirpation of the spleen and the left kidney because of trauma. R. MICHAEL. *Deutsche med. Wchsch.* 1913, xxxix, 444.

The effect of ablation of the spleen on nutrition. ROGER. *J. de physiol. et de pathol. gén., Par.* 9 3, xv, No. 2.

Miscellanea

Situs viscerum inversus totalis. C. ZANOVY. *O-p. mag. Milano.* 9 3, l, 96.

A case of transverse position of the viscera. JORDAN. *Nederl. T. v. d. Geneesk. Amsterdam.* 9 3, l, No.

Abdominal pain. GRO. J. WITTE. *J. N. St. M. Am.* 9 3, cx, 406.

Abdominal pain across. DISCOUSE and BROCKAGE. *Paris med.* 9 3, N 46.

Abdominal diagnosis. RATTEN. *Vr. Lachon-Chir.* 9 3, cxv, 670.

Ten years of abdominal surgery. DOUG. *Ann. de la polycl. centrale de Bruxelles.* 9 3, cxv, No. 4.

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons—

General Condition Commonly Found

1. the Extremities

Clinical and experimental researches on bone formation. J. KODA. *Kyoto-Igak. Zasshi.* 9 3, li, Nos. 3 and 4.

Anatomical findings in imperfect osteogenesis. KAKIYA MATSU. *Vrach. Arch. f. path. Anat. u. Physiol.* f. klin. Med. 9 3, cxvii, N 3.

Bone and joint lesions and their treatment. H. O. TRINCH. *Ann. als. Med. Gaz.* 9 3, cxvii, 6 5.

Action of the X-ray on the development of callus comparative study of roentgenographic and macroscopic aspects of callus. CURRY and DOBARTSK. *J. de physiol. et de pathol. gen. Pa.* 9 3, xv, 37. [483]

Köhler's melody of the metatarsal bone of the foot in children is not fracture. A. KÖHLER. *Arch. f. klin. Chir.* 9 3, cx, 560.

Röntgen-ray findings in epiphysealitis of the humerus. BAUER. *Fortschr. d. Geb. d. Röntgenstr.* 9 3, cx, 732.

Osteomyelitis due to mixed infections. HANARY and THOMAS. *Can. d. Med. Par.* 9 3, cxvii, No. 71.

Acute osteomyelitis and osteoplastic surgery in childhood. Study based on the complete material of the Kaiser- und Kaiserin-Friedrich-Hospital for Children for the period of its existence. 890-9. WACHSNER. *Arch. f. Kinderh.* 9 3, li-xi, May.

Spontaneous fractures in osteomyelitis. ATRAHERNCO. *J. de chir. de Bucarest.* 9 3, l, N.

The clinical picture of fibrous osteitis. TREIBSTADT. *München med. Wchsch.* 9 3, li, No. 5.

Deforming osteochondritis in youth. FRIEDRICH. *Arch. f. klin. Chir.* 9 3, cx, No. 5.

Secondary hyperplastic protuberant osteopetrosis. E. GRAY and P. SCHWARTZ. *Beitr. z. klin. Anat. u. z. allg. Pathol.* 9 3, li, 3.

Experimental epiphyseal periostitis associated with bone crisis. VASILETTI. *Gior. d. Accad. di med. di Torino.* 9 3, cxvii, Nov.

A case of epiphyseal periostitis cured by electrolysis. E. H. COOPER. *Boston M. & S. J.* 9 3, cxvii, 977.

The relation of toxemia to bone tuberculosis. H. A. WILSON and R. C. ROBINSON. *N. Y. M. J.* 9 3, cxvii, 22.

- Treatment of tubercular hip disease. ARTHUR STEIN-
MEYER. *Ion. M. J.* 9 3 xix, 6 a.
- The use of tuberculin in osseous tuberculosis in children.
MARCHAND. *Rev. méd. de la Suisse romande* 9 3 xxxix,
333. [408]
- Treatment of surgical tuberculosis by means of light
rays. Oskar Volpert München med. Wchnschr. 9 3,
lx, 79. [405]
- Hiotherapeutic treatment of surgical tuberculosis.
WITTKE. *Wien. klin. Wchnschr.* 9 3 xxvi, No. 20.
- Ehrlich diazo-reaction in surgical tuberculosis.
Rös in *Reform. med.* 9 3, xxv, 3.
- New points of view in the diagnosis and therapy of
surgical tuberculosis. FARRÉ KÓVÓ. *Med. Klin.*, 9 3
lx, 939.
- A case of acute bone trophic. MÜLLER. *Deutsche*
all.-franz. Ztschr. Berl. 9 3 xlii, 387. [409]
- Exostoses of the calcaneus. BURR. *Arch. f. Orthop. u.*
Mechanotherapie. Unfallschr. Wschr. 9 3 xli, No. 4.
- Solitary cystic exostoses in genu valgum. WIEGERS.
Arch. f. Orthop. Mechanotherapie. Unfallschr. Wschr.
9 3 xli, No. 4.
- The multiple brown tumors found in osteomalacia.
MOLINIER. *Arch. f. klin. Chir.* 9 3 ci, 333. [409]
- The causes of osseous cysts. PARES. *Polska. Roma.*
9 3, xi, No. 6.
- Cystic tumor of the head of the femur. P. DOMERG.
Rev. de l'Hop. Montevideo 9 3, vi, 3. [409]
- Cystic tumor of the head of the femur. PRAT de l.
Hop. Montevideo. 9 3, vi, 3.
- Voluminous chondroma of the internal condyle of the
left femur. MARIU. *bed. méd. Marseille.* 9 3 xlv, No.
99.
- Diseases of joints and bone marrow. L. W. EL. *Am.*
J. Surg. 9 3, xiv, 4.
- Congenital tracks in infancy. FREUDLANDER. *Wien*
klin. Wchnschr. 9 3 xxvi, 3.
- Autogenous vaccines in the treatment of chronic joint
affection. BARNHARTER. *Brit. M. J.* 9 3, 4, 67.
- Phenol camphor treatment of various affections of the
joints, inclusive of tuberculous forms, and of cold abscesses.
FARRÉ KÓVÓ. *Zent. allg. f. Chir.* 9 3 xl, 814.
- Proving the tuberculous nature of arthritic exudate by
means of specific skin reaction of tuberculous guinea pigs.
RICHARD HANSMANN. *Med. Klin.* 9 3, x, 947.
- Immobilation for tuberculous arthritides and bho-
therapy. DOCKÈ. *J. de méd. de Bordeaux* 9 3 lxvi,
No. 5.
- The treatment of gonorrheal arthritis. BROOKS.
Hahnemann Month. 9 3 xlvii, 417. [409]
- Clinical observations on the action of gonococcal vaccine
in chronic gonorrheal arthritides. W. P. SNIOW.
Ztschr. f. Urol. 9 3, xi, 349.
- Catarrhal arthritis (Volkmann) during the development
of case of Burkow disease. HOFER. *Arch. f. Orthop.*
Mechanotherapie. Unfallschr. Wschr. 9 3 xli, No. 4.
- A case of post-traumatic arthritis of the tarsus. THORNER
and THORNER. *Wien. klin. Wchnschr.* 9 3 xlv, 886.
- Parient arthritis in workmen and its importance in
future deformities. L. V. ECKHART. *Hygiene.* 9 3 lxv,
103. [409]
- Operative treatment of pseudo-arthritis of the tibia.
WITTKE. *Arch. f. klin. Chir.* 9 3 ci, No. 3.
- Generalized ankylosing-producing rheumatism of tuber-
culous origin. M. and GAS. d. hôp., Pa. 9 3 lxviii,
No. 6.
- The mobilization of an ankylosed elbow joint by means
of proximal transplantation. GREENHAGEN. *St.*
Petersb. med. Ztschr. 9 3, xxxvii, 93. [410]
- Traumatic lesions of the meniscus of the knee. MAR-
CHAL. *Bull. de l'Ass. med. belge d. accidents du travail.*
9 3, lx, 4. [410]
- Floating cartilage in the knee-joint. C. D. BROOKS.
J. Mich. St. M. Soc. 9 3 xli, 397.
- Further observations on the use of intra-articular silk
ligaments in the paralytic joints of poliomyelitis. HARTOW
and PLUMMER. *Am. J. Orth. Surg.* 9 3, 449. [410]
- The treatment of tuberculous ganglia and of tuberculous
affections of the tendon sheaths, muscles and subcutaneous
tissues. D. QUÉVAUX. *Semaine méd., Par.* 9 3,
xxxviii, No. 3.
- Sarcomas of the tendon sheaths. J. P. TOURNAIX. *Rev.*
de chir. 9 3, xlviii, 87. [411]
- The giant-celled sarcomas originating in the tendon
sheaths and aponeuroses. STREIN. *Frankf. Ztschr. f.*
Pathol. 9 3, xii, [411]
- The granulomata of tendon sheaths heretofore defined
as giant cell sarcomata. FLEISCH. *Deutsche Ztschr. f.*
Chir. 9 3 cxvii, 339. [412]
- The prognosis of tendon ruptures of the crural triceps.
SCHWARTZ. *J. d. praticiens, Par.* 9 3, xxxvii, No. 24.
- Myositis (myositis ossificans incipiens)? L. JACOB.
München med. Wchnschr. 9 3, lx, 869.
- A case of hematoma of the deeposar muscle. ERICH
KLEMMANN. *Dissertation, Breslau.* 9 3.
- Defects of the fingers, bone cyst, giant cell sarcoma.
SIEVERS. *Zentralbl. f. Chir.* 9 3 xl, 95.
- Differential diagnosis of contracture of the fingers.
SCHWARTZ. *Berl. klin. Wchnschr.* 9 3, l, No. 5.
- Ossification of the hands in case of total chondrodys-
trophia. P. REINER. *Fortschr. d. Geb. d. Röntgen.*
9 3, xv, 403.
- Pigmented xanthosarcoma of hand or foot which con-
tains giant cells. HARTERT. *Beitr. z. klin. Chir.* 9 3,
lxviii, No. 3.
- Treatment of chronic ulcers of the leg with special
reference to symptomatology and diagnosis. EDWARD
ADAM. *Internat. J. Surg.* 9 3, xxvi, 21.
- Gangrene of the extremities and its treatment. EISENBERG
and MARSH. *Wien. klin. Wchnschr.* 9 3, xxvi, No. 26.
- The determination of the limits of nutrition in gan-
grene pedis. WILHELM SACHSBERG. *Zentralbl. f. Chir.*
9 3 xl, 970.
- A case of lipoma of the plantar region. GREYER.
Gas. hebdom. d. sc. méd. de Bordeaux 9 3, xxxiv, No. 2.

Fractures and Dislocations

- Some observations on fractures. J. G. SARRAILL. *Ky*
M. J. 9 3 xi, 433.
- Treatment of fractures by means of immovable appa-
ratus. DUPUY DE FENÉVILLE. *Progrès méd. Par.* 9 3,
xli, N. 5.
- The ambulatory treatment of bone fractures by means
of plaster casts and distraction clamps. HALLAUER. *Deutsche Ztschr. f. Chir.* 9 3, cxvii, Nos. 5-6.
- The technique of the Steinmann nail extension. D.
KLEMMANN. *Zentralbl. f. Chir.* 9 3 xl, 945.
- A case of fracture of the radius. GUERIN. *Norsk.*
Mag. f. Lægervidensk. Christiania, 9 3, lxvii, No. 6.
- An uncommon fracture of the distal extremity of the
radius. DI PAOLA. *Rev. osp. Roma.* 9 3, li, No. 6.
- Isolated fracture of the navicular bone. W. M. TOTTEN.
Klinikhoff med. J. 9 3 viii, 60.
- Fractures of the pelvis. JAMES JENCK. *Arch. f. klin.*
Chir. 9 3, ci, 395.
- An additional case of fracture of the floor of the acetab-
ulum coincident fracture of the head of the femur. P. G.
SEILLER and HENRI K. P. VOGEL. *N. Y. M. J.* 9 3
cxvii, 353.

- Accidents and technique of jejunostomy. BLASCO and ALARCON. *Rev. de chir.*, 9, 3, xlvii, 666. [1934]
- A new method of registering intestinal action. TH. DELIBRINO. *Zschr. f. Biol.* 9, 3, lii, 67.
- Intestinal invagination. VACCAR. *Policlin. Roma* 9, 3, xx, N. 6.
- The etiology of intestinal intussusception. GUERIN. *Mitschen und Wechschr.* 9, 3, li, 203.
- Two cases of intestinal intussusception attributable to rare causes. HORNIGER. *Med. Klin.* 9, 3, li, N. 3.
- Intestinal invagination in child and its medical surgical treatment. SA. ARL. *Chirurg. Par.* 9, 3, li, No. 5.
- Intestinal occlusion by volvulus in hernia. SARACINO. *Gazz. d. osp. d. chir. Milano*, 9, 3, xxiv, No. 70.
- X-ray diagnosis of stenosis and ileus of the small intestine. STRUBER. *Med. Klin.* 9, 3, li, N. 5.
- Post-operative ileus. SCHWABER. *Zschr. f. Geburtsh. Gynäk.* 9, 3, lixvii, No. 1.
- Gall-stone ileus, with report of two cases and methods of opening the intestine. J. E. BROWN. *Surg. Gynec. & Obst.*, 9, 3, xvi, 709.
- Acute intestinal occlusion by gall-stone operation recovery. DELACROIX. *Arch. méd. d'Angers*, 9, 3, xvi, N. 6.
- A case of intestinal obstruction by gall-stone. G. SCHWABER. *J. Lancet*, 9, 3, xxxii, 3.
- Compression of the small intestine by the spleen and its complications. CARLON. *Gaz. med. Bucuresti*, 9, 3, li, N. 20.
- The intestinal diverticulum and its clinical significance. P. RICHTEI. *Zentralbl. f. Chir.* 9, 3, li, 9, 3.
- Operative technique in intussusception. B. C. BAKER. *Am. J. Surg.*, 9, 3, xxvii, 306.
- Classification etiology pathology symptoms, diagnosis and treatment of intestinal obstructions. S. O. GALT. *Post-Graduate*, 9, 3, xxvii, 37.
- Tuberculous stenosis of the small intestine. GIBSON. *Paris méd.* 9, 3, No. 27.
- Intestinal and pulmonary tuberculosis in patient who had been post-resected for cancer. ROYCE and GORTER. *Lyon méd.* 9, 3, cxi, N.
- Necrosis of the cecum, ascending colon and anal portion of the transverse colon death from intestinal hernia. VIGOTER. *Bull. et mens. Soc. de chir. de Par.* 9, 3, xxxix, 934.
- Incompetency of the ileocecal valve disorders arising from this condition and their treatment. JOHN H. KEL. *1000 Med. Rec.* 9, 3, lixvii, 95. [1934]
- Carcinoma of the cecum. JACOB. *Mitschen und Wechschr.* 9, 3, li, 55.
- Tuberculous hypertrophy of the cecum. ALONSO. *Riforma med.* 9, 3, xix, N.
- Primary typhilitis. FRANK OHL. *Berl. Klin. Woch.* 9, 3, lixvii, 80. [1935]
- Pathology and therapy of perityphilitis (appendicitis). SCHWABER. *Leipzig. Vortr.* 9, 3. [1935]
- Membranous pericolic (Jackson's anastomosis) and Lane. *Klin. Chir. u. Proctolog.* 9, 3, 4, 75.
- Rejection of the necrotic because of invagination by subcutaneous incision. KARL ANDER. *Berl. u. Klin. Chir.* 9, 3, lixv, 5.
- The V. ceco-jejunostomy. LARSEN. *Oslo. Med. Tidsskr.* 9, 3, li, 35. [1935]
- Hypertrophic gastropathy of appendicular origin. SARTI. *Societ. Riv. osp. Roma*, 9, 3, li, N. 6.
- The origin of inflammation in the appendix on the basis of bacteriological and experimental evidence. HILZ. *Mitt. d. Grenzgeb. d. Med. Chir.* 9, 3, xxvi, 245. [1937]
- The value currently attributed to examination of the blood in appendix and in progressive appendicitis. WALTER SCHWABER. *Mitt. u. d. Grenzgeb. d. Med. Chir.* 9, 3, xvi, 6.
- Chronic appendicitis. ABOV. *Arch. f. Verdauungs-krankh. Berl.* 9, 3, lix, No. 3.
- Scrofula and chronic appendicitis. MATTEI. *J. d. path. anat. Par.* 9, 3, xxvii, No. 24.
- The diagnosis and treatment of acute appendicitis. LOUIS WALKER. *Lancet-Clin.* 9, 3, cxi, 690.
- Treatment of the crisis of acute appendicitis. SCHWABER. *Paris méd.* 9, 3, No. 29.
- Appendicitis associated with abscess of the cecal wall. GILBERTSON and ANDERSON. *Blairton. Upok. f. Lager Kjobenh.* 9, 3, lixv, No. 25.
- Appendicitis operated within thirty hours after its inception. DILLON. *J. d. c. méd. d'Alger* 9, 3, xxvii, N. 1.
- A case of benign appendicitis. FOUR. *Arch. méd. chir. de Province. Poitiers*, 9, 3, li, No. 5.
- The appendix and tuberculosis. BEARD and ALARCON. *Lyon chir.* 9, 3, li, No. 6.
- A case of appendicitis. S. R. ROM. *Med. Press & C.* 9, 3, xiv, 663.
- A case of vascularized recent elastic incarceration and gangrene of the cecum appendix and an intestinal fistula. ARTHUR WALKER. *Zentralbl. f. Chir.* 9, 3, li, 203.
- Carcinoma and carcinoma of the appendix. FRANK. *Arch. med. chir. de Province. Poitiers*, 9, 3, li, No. 5.
- Cylindrical cell carcinoma of the cecum appendix. LEE. *Mitt. u. d. Grenzgeb. d. Med. Chir.* 9, 3, li, 203.
- Diverticula of the appendix. THOMSON. *Arch. med. chir. de Province. Poitiers*, 9, 3, li, No. 8.
- Physiological pathology of the large intestine, especially considered from the surgical point of view. HART. *J. med. de Brax.* 9, 3, xvi, N. 44.
- The surgical colon. A. L. BLISS. *Proctologist*, 1935, vi, 57.
- Anatomical consideration of lymphatic formations about the proximal end of the large intestine. LIGAN. *Ann. de l'Institut Pasteur. Chirurgie*, 9, 3, xvi, 25. [1937]
- Acquired diverticula of the large intestine and their role in pathology. CASE, MATTEI and MOCROUX. *Paris méd.* 9, 3, N. 27.
- Colic states caused by deformities of the colon, symptomatic typhlocystitis, surgical treatment. LARSEN. *Oslo. Med. Tidsskr.* 9, 3, li, No. 47.
- Chronic intestinal disease. A. A. LEE. *Surg. Gynec. & Obst.* 9, 3, xvi, 600.
- Intestinal polyp producing intestinal stasis from the orthopedic viewpoint. ROBERT CARLTON. *Lancet. Clin.*, 9, 3, cxi, 654.
- Orthopedic principles in the treatment of abdominal visceroptosis and chronic intestinal stasis. GOLDSTEIN. *Surg. Gynec. & Obst.* 9, 3, xvi, 587. [1937]
- Chronic constipation its surgical treatment. FRIEDRICH. *Arch. med. chir. de Province. Poitiers* 9, 3, li, No. 5.
- The operative treatment of chronic constipation. SCHWABER. *Arch. f. klin. Chir.* 9, 3, li, No. 3.
- The initial phases of cancer of the large intestine. MATTEI. *Gaz. d. osp. Par.* 9, 3, lixvii, No. 60.
- Abdominal incisions and intestinal anastomosis in the treatment of carcinoma of the colon. ROBERT MATTEI. *Glasgow M. J.* 9, 3, lixv, 40.
- Gas cysts of the intestine. FRANK R. THOMSON. *Surg. Path.* 9, 3, lixv, 2. [1936]

The value of complete physiological rest of the large bowel in the treatment of certain ulcerative and obstructive lesions of this organ. His description of operative technique and report of cases. **JOHN YOUNG BROWN**, Surg., Gynec. & Obst., 9 3, vii, 6. [399]

Early diagnosis of ulcerous colitis. **RODNEY FORT**, Arch. d. Géb. d. Rootgrast 9 3, vi, N 3.
Ulcerative colitis, due to flagellate parasite (the intestinal Lamblia) perforation then an intestinal occlusion. **FAIRBANKS and JACOBSON**, Arch. d. mal. de l'appareil digest. et de la nuit Par 9 3, vi, N 6.

Colitis chronica gravis. **T. KOSCHENKOW**, Deutsche med. Wchnsch. 9 3, xxxix, 995.
Hirschsprung's disease. **MAYER**, Med. Klin. 9 3, ix, No. 24.

Report of case of fecal tumor associated with Hirschsprung's disease. **GRAHAM**, T. Am. Proctol. Soc. 9 3, June. [400]

Métopolitan. **GARCIA**, Argentina med. Buenos Aires, 9 3, xi, No. 3.

Late conditions after excision of the colon by means of deoelgostostomy. **VON BECK**, Beitr. klin. Chir. 9 3, lxxiv, 113. [401]

Dilated and mobile sigmoid colon. **KATZ**, Therap. Obstetric. Odessa, 9 3, vi, N 2.

Divertriculos of the sigmoid. **ARTHUR D. DUNN**, Proctologist, 9 3, vi, 60.

The beginning of the typical neoformations in the rectum and the sigmoid flexure. **LEONARD**, Ztschr. f. klin. Med. 9 3, lxxvii, 355. [402]

Carcinoma of the sigmoid flexure the size of fist. **JACOBSON**, München. med. Wchnsch. 9 3, ix, 55.

Cancer of the pelvic colon. **MATTHEI**, Gaz. d. bôp. Par. 9 3, lxxvii, N 66.

Dysenteric rectitis and chlorhydrate of emetin. **V. LUDWIG**, Beil. med. Par. 9 3, xxvii, No. 49.

Treatment of amoebic dysentery with emetin. **G. BÄCKMANN and H. HERRMANN**, München. med. Wchnsch. 9 3, ix, 37. [403]

Polypos of the rectum of at least thirty years' standing. **OTTE**, Beil. et méd. Soc. anat. de Par. 9 3, lxxviii, 192.

Rectal prolapse treated by colopexy and per-ano-anal wiring on the coexistence of rectal and genital prolapse on hysterocolopexy. **R. PROCTOR**, Bull. et mem. Soc. de chir. de Par. 9 3, xxxiv, 637. [404]

Rectal section for pelvic abscess in men. **MACLAREN**, J. Lancet, 9 3, xxxiii, 54. [405]

Amputation of the rectum under excision of the pelvic colon. **KIRILINO**, Zentralbl. f. Chir. 9 3, xi, No. 22.

A modern operation for rectal fistula. **O. R. VON BOE**, Wchnsch. J. Am. Inst. Homoeop. 9 3, 58.

Two cases of ano-rectal malformation. **MILLER**, Lyon. chér., 9 3, ix, No. 6.

Anal imperforations. **KIRILINOV**, J. d. pertuclens, Par. 9 3, xxxv, No. 5.

Autoplasty with flaps of fat in anal fistula. **DELORE**, Beil. et mem. Soc. de chir. de Par. 9 3, xxxix, 879. [406]

A method of operating on fistula without cutting muscular tissue. **BARKER**, T. Am. Proctol. Soc. 9 3, June. [407]

Diagnosis of hemorrhoids and the rectal sensation. **SCHWARTZ**, Paris. med. 9 3, N 26.

A further consideration of Sir Charles Bell's operation for internal hemorrhoids. **ZONITZ**, T. Am. Proctol. Soc. 9 3, June. [408]

Internal hemorrhoids. **CHAS. J. D. CRICK**, Merck's Arch. 9 3, xv, 7.

Splanchnic atrophy causes, consequences and treatment. **JACKSON**, T. Am. Proctol. Soc., 9 3, June.

Further observations on pruritis ani and its probable etiologic factor results of treatment. **MURRAY**, T. Am. Proctol. Soc., 9 3, June. [409]

The significance of symptoms of pain in the diagnosis of diseases of the digestive apparatus. **REYDONIAN**, Med. I. kron. feb. 9 3, xlvii, Nos. 3 and 22.

Radiology of the digestive apparatus in 9. **CLIBARD**, Arch. d. mal. de l'appareil digest. et de la nuit Par 9 3, vi, No. 6.

Generalization of melanotic tumors of the digestive tract. **SARY and BOGORY**, Arch. d. mal. de l'appareil digest. et de la nuit Par 9 3, vi, No. 5.

Early diagnosis of carcinoma of the digestive tract. **SCHÖTT**, Wchn. klin. Wchnsch. 9 3, xxxvi, No. 26.

Experimental contribution on the circular reupt of the intestinal tract by the employment of skin. **K. K. WERNER**, Chir. Arch. Veltamova, St. Petersburg, 9 3, xlix, 263.

Reply to Hohlbaum's article concerning the question of iodination in operations on the gastro-intestinal tract. **E. L. FISHER**, Zentralbl. f. Chir. 9 3, xi, 720.

Liver, Pancreas, and Spleen

Functional examination of the liver. **ISAAC**, Berl. klin. Wchnsch. 9 3, i, No. 5.

Retardation of the pulse in transsection of the liver. **KIRCHENBERGER**, Wchn. klin. Wchnsch., 9 3, lxi, N 5.

Hemostatic effect of innade tissue in injuries of the liver. **OVYKIN and SCHLADKOW**, Arb. a. d. chir. Klin. d. Prof. S. Fedoroff. d. Milit. med. Akad., St. Petersburg, 9 3, vii, 0. [410]

Passive congestion of the liver caused by hepatic colic. **CANTARONI**, Bull. med. Par. 9 3, xxxvi, No. 45.

Carcinoma and experimental contribution on the rupture of the liver and the bile-ducts. **O. OTTE**, Arch. f. klin. Chir. 9 3, ci, 369.

Solitary cysts of the liver. **HARRY NORMAN**, Ann. Surg., Phila. 9 3, lvi, 805. [411]

Atavistic origin of abscesses of the liver. **CLARA REIDINGER**, Frankf. Ztschr. f. Path. Wchnsch. 9 3, xlii, 3.

Abscess of the liver presenting an abnormal symptomatology. **GUTLICH**, Chir. Par. 9 3, vii, No. 3.

A series of twenty personal cases of abscesses of the liver in tropical countries. **PURVES and OGDARD**, Arch. de med. et de pharm. de Par., 9 3, xxxi, No. 5.

Carcinoma of the liver in an Australian aboriginal. **THOMAS BARNES** and **B. CLIBARD**, Australia. M. J. Gaz., 9 3, 465.

A new method for resection of the liver with employment of free transplantation of fascia. **KOROTKOW and SCHWARTZ**, Zentralbl. f. Chir. 9 3, xi, N 22.

Radical operation on account of alveolar echinococcosis of the liver. **W. M. MYERS**, Chir. Arch. Veltamova, St. Petersburg, 9 3, xlii, 75.

The origin of gall-stones. **A. BARNES**, Ergebn. d. Inn. Med. Kindch. 9 3, xi.

Pathogenesis of biliary lithiasis. **FLANDERS**, Arch. d. mal. de l'appareil digest. et de la nuit Par 9 3, vi, No. 5.

A case of cholelithiasis: expulsion of the stones by vomiting. **URIBE and SARACHAGA**, Rev. de med. y cir. pract., Madrid, 9 3, xxxvii, No. 268.

Cholelithiasis and cholecystitis during childhood and its treatment. **KARATE**, Zentralbl. f. d. Grenzgeb. d. Med. u. Chir. 9 3, xvi, 545. [412]

Cholecystectomy in cholelithiasis: indications and results. **G. BACOT**, Thèse de doct., Par. 9 3. [413]

Anatomical, pathological and clinical study of cases of cholecystitis. **POPOVICH**, Reforma med., 9 3, xlii, No. 3.

Suprapubic fistula after post-typhoid suppurative cholecystitis, cholecystectomy; recovery with persistency of the bacilli in the stools. JACOB. Bull. et mem. Soc. de chir de Par 913, xviii, 379. [1915]

Formation of an artificial cholecystitis by means of drainage tube. FETZ CARNE. Deutsche Zeitsch f. Chir 93, cxviii, 33.

The employment of the omentum for hemostasis in extirpation of the bile-bladder. L. STUCKERT. Verhandl. d. wiss. Ver. d. Arzt. d. schid. Obuchow Krieh St. Petersburg, 93, cxvii, 43. [1915]

Inhibitive action of bile on bacillus coli. E. O. JOHNSON. J. Infect. Dis., 93, xii, No. 3. [1915]

Primary carcinoma of the ampulla of V. ter. ROGER and LAURET. Arch. d. anal. de l'appareil digest. et de la toue. Par 93, x, No. 5.

Benign tumors of the bile-ducts. SAYT BOVDET and MARTIN. Lyon chir 93, lx, No. 6.

Typhoid infection of the bile-ducts in splenia of the gall-bladder. STEFAN ZAROVSKI. Wien klin. Wchnschr 93, cxvii, 798.

Abscesses of the bile-ducts. LEFFORDANT. Presse med. Par., 93, xxi, No. 49.

Diagnosis and treatment of affections of the pancreas. ALBERT VOLFF. Berl. allg. med. Verh.-Anst. 93.

Affections of the pancreas and their treatment. SCHNEIDER. Pratic. Vrach. St. Petersburg 93, xii, Nos. 8 and 10.

Sub-acute hemorrhagic pancreatitis, intervention cure. VIORET and M. URY. Bull. med. de l'Algérie, Alger 93, cxvii, N.

Three cases of acute pancreatitis. KORLOVSKY. Russk. Vrach. St. Petersburg 93, xii, N.

Diagnosis and treatment of acute pancreatitis. VON REITER. St. Petersburg med. Zeitsch. 93, cxviii, No. 1.

Pneumatic cysts. R. C. BRYAN. V. M. Semi-Monthly 1915, xviii, 14.

Effects of ligature of the pancreatic canal in the rabbit. WATERMAN. Nederl. T. J. chier. Geneesk., Amst., 93, 4, No. 1.

A case of free transplantation of the omentum in a stab wound of the spleen. LAZAR. Verhandl. d. wiss. Ver. d.

Arzt. d. Stadt. Obuchow Krieh., St. Petersburg 93, cxvii, 3.

The hemostatic action of the adipose tissue in wounds of the abdominal viscera. POZDNYOV and LADYGIN. Vrach. Gaz. St. Petersburg 93, cx, N.

Giant tumor of the spleen. FRIEDMANN. Monatsch. f. Geburtsh. u. Gynak., 93, cxviii, 3.

Contribution to the knowledge of Banti's disease. GARCERAN. Beitr. klin. Chir., 1915, lxxv, 31.

Banti's disease in childhood, two cases of the disease in earliest infancy. D'ERIKX. Arch. f. Kinderh. 1915, lxvii, May.

A case of Banti's disease of laetic origin. URBATO. Rev. clin. de Madrid, 913, lx, 389.

Modern surgery of the spleen. T. MICHELSON. Ergeben. d. Chir. u. Orthop., 1915, vi, 480. [1915]

Splenectomy in material affections of the spleen. KORYLOW. Arch. f. klin. Chir. 93, cx, No. 3.

Clinical observations concerning twenty-seven cases of splenectomy. H. Z. GIBBS. Am. J. M. Sc., 1915, cxlv, 78. [1915]

Extirpation of the spleen and the left kidney because of trauma. R. MICHAEL. Deutsche med. Wchnschr. 1915, xxxix, 044.

The effect of ablation of the spleen on nutrition. RICHET. J. de physiol. et de pathol. gén. Par 93, xv, No. 3.

Miscellaneous

Setus vaccorum leviens totales. C. ZIVERT. O-p. med. Milano, 93, 4, 36.

A case of transverse position of the viscera. JOHNSON. Nederl. T. J. chier. Geneesk., Amst., 1915, 4, No. 11.

Abdominal pain. GEO. J. WELLS. J. Mo. St. M. Ass., 1915, cx, 400.

Abdominal pain areas. DISCOSSE and BROUWER. Patis med. 1915, No. 30.

Abdominal diagnosis. RATTENHORN. Lancet-Chir. 1915, cx, 678.

Ten years of abdominal surgery. DOOG. Ann. de la poliehn. centrale de Brux., 93, xix, No. 4.

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons—General Conditions Commonly Found in the Extremities

Clinical and experimental researches on bone formation. J. KODA. Kyoto-Igaku-Zasshi, 93, xi, Nos. 1 and 2.

Anatomical findings in imperfect osteogenesis. KARNAKAT. Vrach. Arch. f. path. Anat. u. Physiol. f. klin. Med., 93, cxviii, N. 5.

Bone and joint lesions and their treatment. H. G. THOMAS. Australas. Med. Gaz., 93, cxviii, 63.

Action of the X-ray on the development of callus comparative study of radiographic and microscopic aspects of callus. CLUNIER and DUBREUIL. J. de physiol. et de pathol. gén., Par 93, xv, 37. [1915]

Köhler's malady of the navicular bone of the foot in children is not fracture. A. KOHLER. Arch. f. klin. Chir. 93, cx, 360.

Röntgen-ray findings in epiphyseitis of the humerus. BUCHNER. Fortsch. d. Geb. d. Röntgenstr. 93, xix, 38.

Osteomyelitis due to mixed infections. HAMANT and IVICAR. Gaz. d. hop. Par 93, cxviii, No. 71.

Acute osteomyelitis and osteoplastic surgery in childhood, study based on the complete material of the Kaiser-Wilhelm-Friedrich-Hospital for Children for the period of its existence, 1860-91. WACHSNER. Arch. f. Kinderh., 913, lx-ix, May.

Spontaneous fractures in osteomyelitis. ANTHAKIS. J. de chir. de Bucarest, 93, 4, No. 1.

The chemical picture of fibrous osteitis. THOMAS. Vrach. Arch. f. path. Anat. u. Physiol. f. klin. Med., 93, cxviii, N. 5.

Deforming osteochondritis in youth. FRIEDMAN. Arch. f. klin. Ch. 93, cx, No. 3.

Secondary hyperplastic porotic osteopetrosis. I. GRAY and P. SCHWARTZ. Beitr. klin. Anat. allg. Path. 1915, 3, 3.

Experimental epiphyseal periostitis associated with bone cancer. VAN KETTEL. Gorr. d. Acad. d. med. de Tunis, 93, lxxvi, Nov. 1.

A case of epiphyseal periostitis cured by electrolysis. E. H. GORDON. v. Boston M. & S. J. 93, cxviii, 927.

The relation of the ribs to bone tuberculosis. H. L. WILSON and R. C. ROSENBLOOM. N. Y. M. J. 93, cxviii, 2.

Treatment of fractures of the diaphysis of the femur in children. LAYDE. *Can. d. hop., Par* 9 3, xxvii, No 7

An exposition of the abduction treatment of fracture of the neck of the femur. ROYAL W. H. W. L. L. *Lancet, Lond* 9 3, directly 499

Fractures of the patella: why, how and how should we operate? SAINT JACQUES. *J. de méd. et de chir. de Montréal* 9 3, vii, N. 4.

Fracture and dislocation of the lateral malleolus of the knee-joint. Dujon. *Rev. Bull. et mens. Soc. de chir. de Par* 10 3, xviii, 414

Fractures of the meniscus. LITVET. *Par. chir* 9 3, No. 3.

Posterior triangular fracture of the tibia and certain other complications of malleolar fractures. GUYOT. *Ann. d'Anat. et de Chir. Clin.* 9 3, xxvii, N. 6

The treatment of fractures of the leg, especially of special fractures of the malleolar bone by means of (1) the shoe and combination of this with Frankel's plaster cast, such points as of value. TOSKIN. *Zentralbl. f. Chir* 9 3, xi, No 5

Fracture of the leg. P. T. L. *Progrès méd., Par* 9 3, xiv, No 4

Fractures of the foot, with consideration of expert testimony in personal injury cases. PLATT. *Arch. f. Orthop. Mechanotherapie* (Landskr. Weib) 1 xii, No 4

The treatment of fracture of the calcaneus and injuries to the middle bones of the foot in extension. GALLAGHER. *Zentralbl. f. Chir* 9 3, xi, No 6

A case of fracture of the navicular bone of the foot. J. GONZALEZ. *Rev. clin. de Madrid* 9 3, v.

Complete laceration and dislocation of the knee cured by continuous extension. HARRISON. *Bull. et mens. Soc. de chir. de Par* 9 3, vii, No 4

Narrowing of the intercondylar fossa of the knee in total luxation of the knee-joint. ECKHART. *Ber. d. klin. Chir* 9 3, xxvii, 537

Posterior dislocation of the foot. H. T. L. *Tour. méd.* 9 3, 5.

Surgery of the Bones, Joints, et

Present status of surgery in fractures. C. S. WHITE. *W. J. M. J.* 9 3, vii, 409

Some results of comparative study of several methods for operating treatment of fractures. J. L. B. A. and H. W. H. *Therap. Gaz.* 9 3, xxvii, 506

The treatment of fractures by biology. BERNARD. *Deutsche med. Wchnsch.* 9 3, xxvii, 676.

The treatment of infected and ununited fracture of the shaft of the femur. RAYMOND C. TOWSE. *N. Y. M. J.* 19 3, xviii, 50.

Old ununited fracture of anatomical neck of the femur with suggestions for the immediate treatment of this fracture. JOSEPH B. MURPHY. *South. M. J.* 9 3, vi, 587

The transplantation of bone. EMMETT F. ROBINSON. *J. M. St. M.* 19 3, xi, 395

The fate of bone grafts. FREDERICK J. COTTON and HELEN B. LINDER. *Surg. Gynec. & Obst.* 9 3, xvi, 70

The transplantation of fat in bone cavities. KLOPPER. *Ber. d. klin. Chir* 9 3, xxvii, No. 3

Osteomyelitis with bone transplantation. FRANK L. H. WILSON. *J. Am. M. Ass.* 9 3, ix, 509

Osteotomy in the form of an arc. STREIBER. *Arch. f. klin. Chir* 9 3, xi, No. 3

On any procedure as osteotomy for the correction of the knee position of the limb in obstetrical paralysis of the upper limb: effect of its correction on the function of the limb. Case reports. M. VONDER. *Arch. prov. de Chile* 19 3, xxi, N. 4.

Treatment of rachitic curvatures of the tibia. G. RUSSELL. *Rev.bero-americ. de cir. méd. Madrid* 9 3, xxvii, 40

Removal results of arthrodesis. WATZ. *Arch. f. Orthop. Mechanotherapie* (Landskr. Weib) 9 3, xii, No 4

The end results following the radical operation for knee joint tuberculosis in the adult. M. DEUTSCHE. *Zentr. f. Chir* 9 3, xi, No. 7

Mobilization of the knee joint. P. T. L. *Zentralbl. f. Chir* 9 3, xi, No. 5

Surgery of the obliquely situated epiphyseal. K. T. A. and L. W. H. *Deutsche Chir* 9 3, vii, 51

The treatment of rheumatic muscular contraction by free muscle transplantation. GOSALL. *Deutsche Zentr. f. Chir* 9 3, xi, No. 3

The oblique longitudinal incision as an incision for operations on the volar surface of the wrist and the palmar region of the hand. SAAR and SCHWABER. *Zentralbl. f. Chir* 9 3, xi, No. 5

The operative treatment of knee joint. M. LINDER. *Zentralbl. f. Chir* 9 3, xi, No. 5

Indications for amputation in extension of the limbs. ROBINSON C. CHESNEY. *Par.* 9 3, vii, No. 1

Supracondylar osteoplastic amputation of the femur for movable rithoid legs. E. D. VEDON. *Revista op., etc.* 19 3, 317

ORTHOPEDIC SURGERY

Diseases and Deformities of the Spine

False bony spine: medullary or medullary-embryonic. LARSON and LUTHER. *Rev. de chir* 9 3, xi, N. 6

The so-called instability of the spinal column. TOSKIN. *Russk. Vrach.* St. Petersburg, 1913, xx, 73

The spinal column as affected by traction and hyperextension. ALLING and O'REILL. *Surg. Gynec. & Obst.* 9 3, xvi, 794

The treatment of high scoliosis. CALO. *J. d. prescience, Par.* 9 3, xxvii, 46

Abbott's treatment of scoliosis. A. SCHAEZ. *Ber. klin. Wchnsch.* 9 3, xi, 676

The Abbott treatment of scoliosis. R. R. FITCH and HOWARD L. PETER. *N. Y. St. M. J.* 9 3, xxi, 415

Abbott's method of treating method scoliosis. COOPER. *Bowen. J. de méd. de Bordeaux* 3, xii, No. 4

The treatment of scoliosis by means of plaster of Paris casts after Abbott's method. FALACON. *Monatsh. med. Wchnsch.* 19 3, ix, No. 54

A case of spinal tumor with scoliosis, opera loc. W. H. HARRIS and BURNELL BARNART. *Lancet, Lond* 9 3, directly, 4666

The use of crithoid in the treatment of tuberculous disease of the spine. H. J. G. STAM. *Brit. M. J.* 9 3, xi, 500

- The operative treatment of tuberculous of the spine. M. S. HINCHENSON. St. Paul M J 9 3 xv 77 [415]
 Post-traumatic spondylitis, or Kummel's disease. CARR V. Toulouse med 9 3 xv Nos. and
 Laminectomy in spondylitic paralysis. TILLMANN. Zentralbl. f. Chir 9 3 xi 873
 Eosinophilia of the spine. BRUNO VALENTIN. Beitr 2. Klin. Chir 9 3 lxxv 24
 Traumatic also-spread fixation. FRIEDRICH. Bull. méd. de l'Algérie, Alger 9 3 xxiv N 9
 Spondylitis studied by means of the X-rays. WINTER. Arch. f. Orthop. Mechanotherapie u. Unfallchir. Wiesb 9 3 xi, No. 4
 A compression fracture of the fifth lumbar vertebra. M. LEWANDOWSKY. Med. Klin. Berl. 19 3 ix, 1
 Sacralized vertebra with report of cases. HAROLD D. THOMPSON. Northwest Med. 9 3, 140
 A case of extras after lumbar puncture. W. REUSCH. Med. Klin. Berl. 9 3 ix, 24
 A case of leucemia, associated with tumor-like proliferation of the spinal cord leading to spontaneous fractures. FROEDERICH. Fortsch. a. d. Geb. d. Röntgenstr. 9 3, 21, No. 4
 Traumatic degeneration of the spinal cord considered in connection with case of shish-shaped necrosis of the spinal cord following fracture of the cervical vertebra. WUNDERLICH. Frankf. Zschr. f. Path. Wiesb 9 3 and No. 1
 Investigations in regard to the effect of spinal nucleus in tabetic visceral crisis. BOCKELMANN. Zschr. f. d. ges. Neurol. Psychiatr. 9 3 xvii
 The treatment of gastric crises. FÖRSTER. München med. Wchnschr. 9 3 ix, N 24

Malformations and Deformities

- The open reduction of the congenital hip dislocation by an anterior incision. LEBLOTT. Am. J. Orth. Surg. 9 1, 433 [413]

- Congenital radio-ulnar synostosis. ALBERT MOUSSIER. Ann. de méd. et chir. infant., Par. 9 3 xvii, 308
 Congenital high dysostosis of the shoulder (Sprengel's deformity) the familiar type. NEEBER. Zschr. f. orthop. Chir. 9 3 xiii, 59
 The treatment of rachitic deformities. BOERN. Arch. f. Kinderh., 9 3 ix-ix, May
 The curettage and treatment of deformities following anterior poliomyelitis. B. P. CAMPBELL. Edinb. M. J. 9 3, 2, 50 [415]
 A peculiar typical deformity of the styloid process of the ulna. A. REICHERT. München. med. Wchnschr. 9 3 ix, 140
 "Madelung's" deformity of the wrist. MEISCHNER. Ergeben. d. Chir. u. Orthop. 19 3 vi 640 [416]
 "Madelung's" deformity of the wrist (carpus valgus). BIER. Arch. f. Orthop. Mechanotherapie u. Unfallchir. Wiesb 9 3 xii, No. 4
 Spring-knee. PILSENER. Lyon méd., 9 3, cix, Nos. 3 and 24
 Spring knee. BILLIET. Gaz. d. hôp., Par. 9 3, lxxvii, No 6
 The treatment of congenital defects of the fibula, with contribution on operations on the epiphysis. HILBER. Deutsche Zschr. f. Chir. 9 3, cxvii, Nos. 5-6
 Report on progress in orthopedic surgery. KUKY. Arch. f. Orthop. Mechanotherapie u. Unfallchir. Wiesb. 9 3, xii, N 4
 The treatment of contracted flat-foot. G. ORO MÜLLER. Therap. d. Gegenwart, 9 3, II 265
 The technique of supporting the flat foot. W. LIEBOWITZ. Berl. klin. Wchnschr. 9 3, 1
 Response to Professor Müller's criticism of my article entitled "Contributions on the pathology of hollow club-foot." GRUNZ. Beitr. a. klin. Chir. 9 3, lxxvii, No. 3
 The question as to the therapy of club-foot. S. SCHÖNBERGER. Chirurgia 9 3, xxviii, 503
 A modified cast plaster and plaster of Paris dressing in the treatment of club-foot. LEWY. München. med. Wchnschr. 9 3 ix, N 3

SURGERY OF THE NERVOUS SYSTEM

- A case of Recklinghausen's disease. REISZ and LA. Toulouse med. 1913 xv N 9
 Malignant cubital neuroma. NOWI JESSER. vn, 8 vt and MARIOT. Provinces méd., 9 3 xvi, 3 [418]
 Ganglion neuromatous. PIERONI. Frankf. Zschr. f. Path. Wiesb 9 3 xii, N
 The treatment of chronic sciatica. M. J. LEWIS and W. J. T. FLOX. Therap. Gaz. 9 3 xxvii, 39
 Sciatica and its treatment. LOW. LYNDSBROUGH HUNT. Med. Rec., 9 3, lxxvii, 13
 The treatment of sciatica. G. A. YOUNG. I. term M J 9 3, xi, 160
 New data on the nature of sciatica and new methods for the surgical treatment of the affection. STROFFEL. München. med. Wchnschr. 9 3 ix, No. 5
 Action of the X-rays on the peripheral and central nervous system. U. DE LORCA. Arch. Röntgen Ray 9 1, xvii, 9 [418]
 A case of traumatic paralysis of the vagus and hypoglossal

- and nerves. M. BERNHARDT. Neurol. Zentralbl., 9 3 xiii, 113
 The symptomatology and surgery of the disturbances of the phrenic nerve. OBERLINDER. Zentralbl. f. Chir., 9 3 d 852 [418]
 Volkmann's ischemic paralysis, its pathogenesis. PROCHER. Polichin., Brux., 19 3 xii, No. 6
 Involvement of the reflex of the radial caused by traumatic lesion of the fifth cervical root. RIZCA. Rev. neurol. Par. 9 3 xii, No. 4
 The hypoglossic plexus in man. LATARJET and BOCHET. Lyon chir., 9 3, ix, No. 6
 Section and suture of nerves. BARNIKEL. J. d. prat. chir., Par., 19 3, xvii, No. 23
 "Pariavascular" method for the suture of tendons and nerves. MICHON. Morgagni, 9 3 iv No 2
 Experiences with Stödel's operation in spastic paralysis. HORN. vn. München. med. Wchnschr. 9 3 ix, No. 5
 Plexus grafts. KATZENTHUM. Berl. klin. Wchnschr. 9 3, ix, No. 5

The rational treatment of tetanus, with report of twenty-three cases from the Episcopal Hospital, Philadelphia. A. P. C. ANNEURST and R. L. JORD. *Am. J. M. Sc.*, 9, 3, civ 866.

The surgery of leprosy. T. L. SANDER. *South African M. Rec.*, 9, 3, xl, 229.

The existence of a new gland of lateral secretion. PRYDE. *Riforma med.*, 19, 3, xxxi, No. 22.

Sera, Vaccines and Ferments

A new method of serum diagnosis. W. PRELLER and G. WIEBER. *Berl. tierärztl. Wchnsch.*, 9, 3, xxxi, 449.

Diagnosis of surgical tuberculosis by the focal tubercular reaction. PRIEST. *Rev. osp. Roma*, 9, 3, xl, 1, 2.

Observation on diagnostic tuberculin. N. D. BARNES-WILL. *Lancet*, Lond., 9, 3, civxxxv, 58.

The present status of the tuberculin tests. CHAS. B. BLAKE. *Med. Rec.*, 9, 3, lxxxiii, 679.

The present status of tuberculin and its therapeutic limitations. J. RITTNER. *Illinois M. J.*, 9, 3, xxi, 638.

The clinical, morphological, and experimental investigations in regard to local tuberculin reactions caused by local injections in tuberculosis of the skin. F. J. ROSENBERG. *Ztschr. f. Hyg. u. Infektionskrankh.*, 9, 3, lxx, 539.

Experiments in regard to the nature of the tuberculin reaction. P. ULLT. *M. Wchnsch. Ztschr. f. Immunitätsforsch.*, 9, 3, xviii, 85.

The treatment of surgical tuberculosis with Rosenbach's tuberculin. H. MIERKE. *Beitr. z. klin. Chir.*, 9, 3, lxxxv, 28.

Methods of using the Rosenbach tuberculin. KARL DROBOWATY and EMIL ROSENBERG. *Deutsche med. Wchnsch.*, 9, 3, xxxix, 24.

Further information in regard to the reaction of thermoprecipitate in tuberculosis. ALBERT FACHS. *München med. Wchnsch.*, 9, 3, lx, 1480.

Comparisons of different anti-pneumococcus sera. BOUVERIE and MOUTRI. *Bol. d'Inst. nat. de Hygène de Aliosia XIII*, 9, 3, lx.

The value of the derivation of the complement after von Dungern in the diagnosis of malignant malformations. AMERLING. *Polster. Roma*, 9, 3, xxi, No. 6.

Early diagnosis of carcinoma by means of the dialytic procedure after Abderhalden. LUDWIG. *Gaz. d. hôp. Par.*, 9, 3, lxxxvi, No. 65.

Abderhalden reaction the human ovum and cancer larvae. *Gaz. med. de Nantes*, 9, 3, xxxi, No. 24.

Serodiagnosis of tumors after the method of von Dungern. P. A. PETERLIN. *München med. Wchnsch.*, 9, 3, lx, 318.

Serodiagnosis of tumors by means of the complement fixation test. HALPERIN. *München med. Wchnsch.*, 9, 3, lx, 9-4.

The derivation of the constituents of serum which influence cancerous cells. FREUDEN and KAMETZ. *Wien. klin. Wchnsch.*, 9, 3, xxvi, No. 5.

Physico-chemical researches on serum agglutination. P. SCHMIDT. *Arch. f. Hyg., München und Leipzig*, 9, 3, lxxx, 62.

The antitoxic treatment of tetanus. E. W. GRIFFIN. *Am. J. Surg.*, 9, 3, xxvii, 205.

Two cases of marked septicaemia, cured by means of the antiseptico-coccus serum combined with fixation albumen. FOUCHÉ-BREYARD and RUTLAND. *Gynécologie Par.*, 9, 3, xvi, No. 4.

Serotherapy in erysipelas. O. NEWPORT. *Calif. Med. J.*, 9, 3, vi, 32.

Do results justify the use of phylacogens. C. R. MINT. *Boston M. & S. J.*, 9, 3, civxvi, 26.

Vaccine therapy. I. E. COLCOTT. *Southern M. J.*, 9, 3, vi, 367.

Sensitized vaccine in acute bacterial infection, results obtained in a series of cases. GORDON and OTTIE. *Lancet*, Lond., 9, 3, civxvi, 705.

Observations of results from vaccination against tuberculous. C. A. JULIAN. *Med. Rec.*, 9, 3, lxxxiii, 690.

The treatment of cancerous subjects by means of vaccination. LEWIS. *Therap. d. Gegenw. Berl.*, 9, 3, liv No. 6.

Principles of ferment methods; textbook for physicians, chemists and botanists. JULIUS WORMMUTTER. *Speinger*, Berl., 9, 3.

Studies of normal and pathological serum by Abderhalden dialysis method. Studies of the specificity of the protective ferment. Second contribution. Studies of the serums of Basedow's disease, nephritis, and diabetes mellitus. A. E. LAMPE and L. PAPADOPOULOS. *München med. Wchnsch.*, 9, 3, lx, 533.

Experimental studies of the specificity of Abderhalden's proteolytic protective ferment. E. FRANK and F. ROSENTHAL. *München med. Wchnsch.*, 9, 3, lx, 14, 5.

Immunity against pancreatitis. H. JOSEPH and J. PRINZINGER. *Mitt. d. Grenzgeb. d. Med. u. Chir.*, 9, 3, xxvi, 290.

Immunity against tuberculosis by natural selection. H. W. BUDER. *Ztschr. f. Tuberkul.*, 9, 3, xx, 51.

The antitubercular action of serum in anaphylaxis. J. ARNO. *Ztschr. f. Immunitätsforsch.*, 9, 3, xviii, 11.

Blood

The blood in surgery. BOCCACCINI. *Clin. chir.*, Milano, 19, 3, xli, No. 5.

Hemorrhages and obstructive icterus experimental studies by means of the Eck fistula. G. H. WATKINS and C. W. HOOVER. *J. Exp. M.*, 9, 3, xvi, 503. [429]

A rapid change of hemoglobin to bile pigment in the circulation outside of the liver. G. H. WATKINS and C. W. HOOVER. *J. Exp. M.*, 9, 3, xvi, 6. [430]

The technique of blood analyses. L. MICHNER. *Med. Klin.*, Berl., 9, 3, lx, 7, 6.

A new chamber for counting blood cells and criticism of the methods of counting blood cells. W. ROSENDAHL. *Pflüger's Arch. f. d. ges. Physiol.*, 9, 3, cii, 8.

Studies of the Armet method for determining the neutrophile blood picture, and the neutrophile blood picture in health. ARNET von BORMANN. *Beitr. z. Klin. d. Tuberkul.*, 10, 3, 3, 9.

Observations on the inter-sexual reaction of the blood in man and new researches on the inter-sexual reactions of the blood in the horse. L. LÖNNER and L. COOPER. *Gynécologie Par.*, 9, 3, xvi, No. 4.

The combining and ionizing substances in the red blood cells. Second communication. The antigen of blood. KARL LAUBSTEDER and EMIL PRASER. *Ztschr. f. Immunitätsforsch. u. exp. Therap.*, 9, 3, xvi, 302.

Changes in the blood and the hematopoietic organs after aspartations and ematulations. SCHAUER. *Russk. Vrach.*, St. Petersburg, 9, 3, xii, 63.

Researches on the blood serum and the cerebro-spinal fluid of epileptics. CARLO TRIVITTARIELLO. *Zentralbl. f. Bakteriöl.*, 19, 3, lxxi, 165.

The foreign bodies enclosed in leucocytes with polymorphous nuclei during surgical affections. NAZZARIANO. *Riforma med.*, 9, 3, xxi, Nos. 22 and 23.

The influence of different large doses of radium emanation upon the blood. GUONERT and HUBER. *Radion in Biol. u. Med.*, 9, 3, 2, 202.

Urban factors in the chlorotic anemia of the new-born and its preventive treatment. F F ARMAND-DRELLER. *Rev. med. de gynéc. et obst. et de pédiat.* Par. 9 3, vii, 1 2.

Anemia of the lower part of the body. G. F. ORS. *Ergieb. d. Chir. Orthop.*, 9 3, vi.

Intravenous injection of small quantities of human blood for the treatment of severe anemia. WILKIN. *München med. Wechnchr.* 9 3, ix, 307. [420]

Anemia from the standpoint of the operating surgeon. HARVEY T. BYRUM. *Chicago Med. Recorder* 9 3, xvi, 3 2.

The present status of the treatment of hyperemias. EUGEN JACOB. *Therap. d. Gegenw.* 9 3, ix, 24.

Intraoperative hemorrhage caused by isolated rupture of branch (arteria phrenica) of the hepatic artery. A. REINHARDT. *Deutsche Zeitschr. f. Chir.* 9 3, xvi, 309.

The employment of the Mousberg tube in cases of hemorrhage. VON SAAR. *Ergieb. d. Chir. u. Orthop.* 19 3, vi, [421]

Arrest of hemorrhage and treatment of wounds with coagula. KOCHER FONIO. *Atroch. Pisto.* Cor. Bi. schweiz. Arzte, 9 3, xiii, 385. [421]

The checking of internal hemorrhage by means of intravenous injection of grape sugar. SCHNEIDER. *Therap. d. Gegenw.* 9 3, ix, 95. [421]

Hemorrhage from the axillary artery three months after trauma, ligation of the artery false Volkmann's ischemic paralysis. FAUJEL. *Rev. med. de l'Est.*, 9 3, i, 304. [421]

The successful treatment of hemorrhoidal hemorrhages by means of the thermocautery. R. PARKIN. *München med. Wechnchr.* 9 3, ix, 30. [421]

Thromb. ROBERT HANSEN. *Vierteljahr. Arch. f. pathol. Anat. u. Physiol.* 9 3, xviii, 65.

Thrombosis of the portal artery. F. WILKIN. *Arch. d. Chir. Klin. d. Prof. Oppel, St. Peterb.* 9 3, iv, 53.

A report of cases of thrombosis of the inferior vena cava. T. WILLET and E. W. MARSHALL. *J. Am. M. Ass.* 9 3, ix, 878.

Thrombotic venous thrombosis in the upper extremity. BACH. *Deutsche med. Wechnchr.* 9 3, xxxix, 907. [422]

Infusions of sugar as prophylactic against thrombosis. FRANK KUCH. *Deutsche Zeitschr. f. Chir.* 9 3, xviii, 90.

Thrombophlebitis of the cavernous sinus of toroncolous origin. SITTELM. *Nederl. Tijdschr. Geneesk. Amsterdam* 1913 4, V, 5.

A case of operated embolism of the femoral artery. KIN. *Wien. Klin. Wechnchr.* 913, xvi, N. 25.

Some experiments on transfusion of blood. DRELLER and LEBRON. *Echo méd. du Nord, Lille* 9 3, xvi, N. 5.

Direct transfusion of blood. GIBELL. *München med. Wechnchr.* 19 3, ix, 374.

Regarding case of direct transfusion of blood by end t. end suture of the radial artery and basilic vein. JACOB. *Bull. med.* 9 3, xvii, 435.

The Wassermann reaction in the Johns Hopkins Hospital. R. H. ALAY. *Bull. Johns Hopkins Hosp.* 9 3, xvi, 75. [422]

Blood and Lymph Vessels

Rhythmical spontaneous contractions of arteries. O. B. MAYER. *Zeitschr. f. Biol.* 913, ix, 275.

Investigations in regard to the automatic movement of the arteries. HERRMANN FULL. *Zeitschr. f. Biol.* 9 3, ix, 287.

A case of stenosis of the anastomotic arteries cured by excision. K. LEAL. *Deutsche med. Wechnchr.* 9 3, xxxix, 147.

Aneurism of the popliteal artery: ligature of the femoral artery t. the artery of Scarpa's triangle; recovery. MONALDI PEREZ. *Rev. de med. y de pract.* Madrid, 913, xxviii, No. 369.

Arteriothromboly O'D. *Northwest Med.*, 1913, [422]

Rupture of the vena cava caused by trauma. SCHNEIDER. *Deutsche Zeitschr. f. Chir.* 9 3, xviii, 90.

A frequent cause of varicose veins in women. QUERQUET. *Arch. méd.-chir. de Normandie. La Havre*, 9 3, iv, No. 5.

A contribution to the operative treatment of aneurysms of the lower extremities. KROHN. *Beitr. Klin. Chir.* 9 3, xxxvii.

The treatment of varicose veins by means of the circular incision. GIBELL. *München med. Wechnchr.* 9 3, ix, No. 2.

Venous aneurysms. DOKHOVNIK. *Russk. Vrach. St. Peterb.* 9 3, ix, No. 5.

Two cases of vein grafting for the maintenance of direct arterial circulation. J. H. PERCIVAL. *Lancet, Lond.* 9 3, cxxxix, 795.

Researches on transplantation of blood vessels. GIOVANNI CASTELLANO. *Beitr. z. path. Anat. u. allg. Path. Jena*, 9 3, lvii, 63.

Treatment of aneurysms by means of heated air. VIO. *Chir.* 9 3, vii, No. 2.

The action of adrenalin upon the peripheral vessels. W. A. SWENSSON. *Dissertation St. Peterb.* 1913. [423]

The ingestion of bacteria by the subepithelial lymphatic glands in health. K. H. DREAR. *Lancet, Lond.* 1913, cxxxix, 4606.

Heteroplastic production of lymphoid tissue. GARNON. *Frankf. Zeitschr. f. Path. Wiss.* 9 3, xiv, No.

Intraarterial lymphatic varices in the inguino-crural region. JACOB. *Bull. et mem. Soc. de chir. de Par.* 19 3, xxxix, 600. [424]

Tuberculosis of the lymphatics. L. H. RICHMOND. *Am. J. Med. Sci.* 9 3, xvi, 6.

Hodgkin's disease, lymphopneumothorax. LACROIX. *Gaz. d. hôp. Par.* 913, lxxviii, N. 67.

Contributions to the knowledge of lymphangiomas. WALTER M. LILIE. *Beitr. z. Klin. Chir.* 9 3, lxxvii, 57.

A case of lymphosarcoma treated by radium. TONN. *Arch. Röntgen Ray* 9 3, xvi, 418.

Lymphopneumothorax. HANLEY. *method. Puncture. Soc. Ann. Surg. Phila.*, 913, lvi, 785. [424]

Elephantiasis of the lower limbs. JORGE. *Zentralbl. f. Chir.* 9 3, xl, 9 5.

Drainage by means of thread according to HANLEY in case of elephantiasis. BYRON KOLOMOYAR. *Vestnik d. v. Ver. d. Arst. d. Stadt. Obshch. Kir. St. Peterb.* 9 3, xix. [425]

Poisons

Bacteremia. W. C. K. BARKER. *Ophth. Rec.* 913, xii, 504.

Tubercle-septicemia, pyemia. A. J. BURKHARDT. *Am. J. Med. Sci.* 9 3, xvi, 30.

The occurrence of tubercle bacilli in the blood. B. C. KROHN. *Zentralbl. f. d. Grenzgeb. d. Med. Chir.* 9 3, xiv, 5.

A new spirochete found in human blood. HILLY. *Cancer. Lancet, Lond.* 19 3, cxxxix, 4586.

Achylostoma, erythema, new human parasite. CLAYTON LARK. *Indian Med. Gaz.*, 913, xlviii, 7.

Tetragonous septicemia. J. STOKES and THOMAS HORTON. *Lancet, Lond.* 9 3, cxxxix, 4586.

The gonococcus. W. B. CHURCH. *Calif. Elect. M. J.* 19 3, vi, 3.

The automatic development of Röntgen ray plates
A. WERNER. *Mitschen. med. Wochenschr.* 9 3, ix, 264.
Hepatopneumonia and X-rays. LITTLE. *Progr. med. Sci.* 9 3, xii, No. 55.

Radiographic determination of the position of foreign bodies. GOLITSKY. *Russk. Vrach. St. Peterab.* 19 3, xii, No. 22.

On the exact localization of foreign bodies in the human body. SCHWABACH. *Politisches Roma.* 9 3, ix, No. 6.

Radiographic measurements of the movements of the shoulder. MURAMORO DELLA ROVERE. *Arch. d. Electr. med., chir. et clin., Bordeaux.* 9 3, xii, No. 360.

The value of the data furnished by radiography in thoraco-abdominal affections. DELATTRE. *J. d. prat. med.* 19 3, xvi, No. 5.

Decomposition of the solutions of radium and of radium emanations in the organism after their introduction into blood circulation. ENGELMANN. *Med. Klin., Berl.* 9 3, ix, No. 5.

Fulguration after the method of Keating Hart. ROSE. *Nederl. T. jdschr. Geneesk., Amst.* 9 3, No. 1.

Clinical contributions on accidents caused by electricity. MAL. *Deutsche Zeitschr. f. Nervenh. Leibes.* 9 3, xvi, No. 4-5.

Heliotherapy. L. DE CHALQUE. *Par.* 9 3, viii, No. 26.
Successful heliotherapeutic treatment of surgical tuberculosis and tuberculous of the bronchial glands. ROBINSON and FLETCHER. *Berl. Med. Wochenschr.* 19 3, i, No. 3.

The employment of heliotherapy at the seaside of southern Spain. ORLANDO. *Pediatric. Zeitschr. f. Paed.*, Kilmatol. u. Kurort Hyg., 9 3, 70.

The employment of heliotherapy after interventions. ALLEN. *Progr. med. Sci.* 9 3, xiv, No. 2.

The Farin light treatment of the London Hospital. 900-911. *J. H. SINGH. Lancet, Lond.* 1913, clxxxv, 655.

Military and Naval Surgery

Military surgery. G. M. BLACK. *Am. J. Surg.* 19 3, xvi, 24.

A scaphoid bullet wound. HUGHES and J. M. COOT. *Nederl. T. jdschr. Geneesk. Amst.* 9 3, i, No. 20.

The treatment of gun-shot wounds of the chest. A. L. DUNN. *Colo. Med.* 9 3, x, 90.

Brief remarks on gun-shot wounds of the abdomen, with report of cases. LEWIS. *Pediatric. J. South Car. M. Ass.* 9 3, ix, 4.

Bullet wounds of the liver with report of case. H. FERNANDEZ. *Colo. Med.* 9 3, x, 70.

Gun shot injuries of blood vessels. LOTTEN. *Deutsche Zeitschr. f. Chirurg.* 9 3, [426]

Surgical Diagnosis

The importance of ascitic and leucocytic reaction in the diagnosis of tuberculous inflammatory tumors of the peritoneum. POLICHO. *Roma.* 9 3, ix, No. 2.

GYNECOLOGY

Uterus

Uterine affections. GUZIO. *Imperiosa med. San. Paulo* 9 3, xii, No. 9.

Diseases of the uterus and the ovaries and psychoses. ROSEN. *J. allg. prakt. Med.* St. Peterab., 9 3, xvi, June.

A large corpora uterina enclosing the uterus and showing malignant tumor. ROSEN. *Gazz. d. med. d. chir.* Milano, 9 3, xvi, 396. [427]

Uterine cancer. H. HENRIKSEN. *North Am. J. Obstet. Gynec.* 9 3, xvi, 342.

An early diagnosis of cancer of the uterus. With report of an hysterectomy in an early case. A. C. HENRIKSEN. *Canad. J. M. & S.* 19 3, xvi, 413.

The utility of exploratory curettage for the early diagnosis of uterine cancer. STERN and LIEBER. *Ann. de gynéc. et d'obst.* Par. 9 3, x, 317.

The utility of cystoscopic examination in cancer of the cervix of the uterus. F. LUCO. *Arch. ital. di ginec.* Napoli, 9 3, xvi, 3.

A case of an extended carcinoma which grew through the rear wall of the uterus and penetrated to the rectum. COZZI. *Monatsschr. f. Geburtsh. u. Gynäk.* 9 3, xvi, 407.

Recovery in case of carcinoma of the uterus demonstrated by test-curettage. HENSE. *Deutsche med. Wochenschr.* 9 3, xvi, 1958.

Chorio-epithelioma, following hydatidiform mole and giving rise to intra-peritoneal hemorrhage from an extension to the chorio-epithelium. WILSON. *Proc. Roy. Soc. Med.* 19 3, vi, Obst. & Gynec. Sect., 14. [427]

Adenomyosis of the uterus and of the rectum. M. RABEN. *Gynecologia.* 9 3, ix, 577. [427]

Contributions to the study of benign chorio-epithelioma of the all of the uterus and tubes. P. DUBOIS. *Bull. de l'Acad. roy. de med. de Belg.* 9 3, xvi, 75. [427]

Surgical treatment of uterine cancer. BOSTER. *Rev. gynecol. de chanc. med.* Madrid, 19 3, xvi, No. 65.

Treatment of inoperable cancer of the cervix of the uterus, the present status of the question. ROSEN and ALLEN. *Gaz. d. med.* Par. 9 3, xvi, No. 70.

Complete removal of uterine cancer by test curettage. P. PARR. *Deutsche med. Wochenschr.* 19 3, xvi, 247.

Buzza's recent results in the radical operation of uterine cancer. LAURICIA. *Arch. ital. di ginec.* Napoli, 19 3, xvi, 3.

Means of improving the immediate results of the radical operation of uterine cancer by the abdominal path. DE BORM. *Société med. Par.* 19 3, xvi, No. 26.

Results of X-ray and radon-therapeutic treatment of uterine carcinoma. E. BERNI. *Deutsche Gesellschaft f. Gynäk. u. Heb.* 9 3, May. [428]

Röntgen ray and radon-therapeutic treatment of myoma and carcinoma of the uterus. A. DOMINICINI. *Deutsche Gesellschaft f. Gynäk. u. Heb.* 9 3, May. [428]

A peculiarly shaped sarcomatous uterus. KISTNER. *Deutsche Gesellschaft f. Gynäk. u. Heb.* 9 3, May. [428]

Experiences with radiotherapy of myomata and of characteristic hemorrhages of the uterus. ESCOFFIER. *Fortschritt. a. d. Geb. d. Gynäk.* 9 3, x, No. 3.

X-ray treatment of myomata and fibroids of the uterus. HENSE. *Fortschritt. a. d. Geb. d. Gynäk.* 9 3, x, No. 4.

- Partial myoma operations. FERRARO. Deutsche Gesellschaft. f. Gynäk. Halle. 9 3, May. [429]
- Dissemination of terine fibroma, with conservation of menstruation, radiotherapeutic technique. CHARLIER. Bull. et inf. Soc. de radiol. méd. de Par. 9 3, [430]
- X-ray treatment of uterine fibroids, menorrhagia and metrorrhagia. SAMUEL STEIN. Am. J. Obst. N. Y. 9 3, April. [431]
- Pathology and treatment of uterine hemorrhage. B. WITTMANN. Practitioner Lond. 9 3, xi, 95. [429]
- Clinical notes on uterine hemorrhage. HUBART A. ROBERT. Southern M. J. 9 3, vi, 401.
- The influence of the radium emanation on uterine hemorrhages. ORTIZ. Zentralbl. f. Gynäk. 9 3, xxviii, No. 2.
- The thyrogenous etiology of hemorrhagic metropathia. E. SIMMER. München med. Wchschr. 9 3, ix, 96. [429]
- The pathology of uterine cysts passed during menstruation. W. B. BILL. Surg. Gynec. & Obst. 9 3, xvi, 647. [429]
- The forensic significance and the treatment of menstruation accompanied by psychic disturbances. HOOB ROSE. Arch. f. Kriminalanthropol. 9 3, hii, 324.
- Menstrual metrorrhagia adult cases. CROSSLAND. J. Obst. & Gynec. Brit. Emp. 9 3, xiii, 359. [430]
- Disturbed menstruation in psychoses. H. HAYN. Ztschr. f. d. ges. Neurol. Psychiatr. 9 3, xv, 5. [430]
- So-called idiopathic dysmenorrhea and its treatment. DALTON. Progr. méd. Par. 9 3, xiv, No. 5.
- The use of the metronaxin in the treatment of dysmenorrhea and sterility. P. F. WILLIAMS. N. Y. M. J. 9 3, xxvii, 90.
- Dysmenorrhea and its treatment. ALBERT BLA. Med. Klin. 9 3, ix, 643. [430]
- The treatment of amenorrhea. ZIEGLER. Deutsche Gesellschaft. f. Gynäk. Halle. 9 3, May. [430]
- A further consideration of the use of corpora lutea in the treatment of artificial menopause. C. A. HILL. Surg., Gynec. & Obst. 9 3, xvi, 72. [431]
- The treatment of endometritis. GEO. F. WARD. N. Y. M. J. 9 3, xxvii, 8. [431]
- A case of uterus septicus (diagnosed on the removal of the placenta). C. KÖNIGMARK. Strassburg med. Zeit. 9 3, 77.
- Inversion of the uterus, with report of case occurring during the puerperium and caused by fibroid. WALTER C. JONES. Surg. Gynec. & Obst. 9 3, xvi, 63. [432]
- Retraction of the uterus. A. DONALD and W. F. SAW. Practitioner Lond. 9 3, xi, 96. [432]
- Removal of uterus from the round ligaments while healing after correcting retroversion of the uterus. W. T. COUGHLIN. Surg. Gynec. & Obst. 9 3, xvi, 71.
- An unusual case of rupture of the uterus. ANDREWS. Proc. Roy. Soc. Med. 9 3, vi, Obst. & Gynec. Sect., 7. [433]
- Adnexal and Peritestic Conditions**
- The arrangement and distribution of the nerves in certain mammalian ovaries. ABEL and McILROY. Proc. Roy. Soc. Med., 9 3, vi, Obst. & Gynec. Sect. 240. [433]
- Cancerous transformation of cysts of the ovary. OTTOLDO-BROGAKOVA. Russk. Vrach, St. Petersburg. 9 3, xi, No. 8.
- Metastases of the ovary. BORST. Wlen. klin. Wchschr. 9 3, xxvii, No. 26.
- Dermoid and teratomas. ROSENTHAL. Monatsschr. f. Geburtsh. u. Gynäk. 9 3, xxviii, 99.
- Paratuberculous peritonitis with involvement of the ovaries and appendix. B. RATHKE. Monatsschr. f. Geburtsh. u. Gynäk., 9 3, xxviii, 122. [433]
- The rôle of ovarian disease in the production of sterility. GEO. W. KOSK. K. Bull. Lying-In Hosp. 9 3, ix, 97.
- The grafting of human ovaries. T. TURNER. J. de chir. 9 3, 2, 329. [433]
- Transplantation of ovaries into foreign species. W. HANCO. Arch. f. Entwicklungsgesch. d. Organismen, 9 3, xiv, 748. [434]
- Ovarian surgery during the year 9 2. DUMEL. J. de chir. de Brucard, 9 3, 2, No. 1.
- The effect of castration on the hypophysis. ROSE. München. med. Wchschr. 9 3, ix, 95. [434]
- A case of chorio-epithelioma of the Fallopian tube following extra-uterine gestation. COPE and HARRIS. Proc. Roy. Soc. Med., 9 3, vi, Obst. & Gynec. Sect., 247. [434]
- Indications for operation in cystic adenoma. P. LIZCAVO. Siglo med., 9 3, ix, 14.
- A clinical lecture on salpingo-oophoritis. T. G. STEVENS. Clin. J. 9 3, xlii, 29.
- Surgical treatment of pyosalpinx. S. ANDERSON. Ky. M. J. 9 3, xi, 50.
- Abdominal hysterectomy by anterior amputation in bilateral pyosalpinx. BARNARD. Arch. mens. d. obst. et de gynéc., Par. 9 3, h, No. 5.
- Tuberculosis of the tube. JAYLE. Presse méd. Par. 9 3, xxi, No. 51.
- Fibrosarcoma of the broad ligament. J. JACOB. Zentralbl. f. Gynäk., 9 3, xxviii, 91.
- The treatment of pus within the female pelvis. J. C. WOOD. N. Eng. M. Gaz., 9 3, xlviii, 287.
- Massive intraperitoneal hematomas of the pelvis. JAS. HARRAR. Bull. Lying-In Hosp., 9 3, ix, 5.
- External Genitalia**
- The surgical treatment of primary carcinoma of the vagina. POISSONET. Budapesti orvosi seg. Schmetz, 9 3, B, 6. [435]
- Traumatic rupture of the vagina and resultant prolapse of the small intestine. F. VOOR. München. med. Wchschr., 9 3, ix, 126.
- Fracture of the pelvis and laceration of the vagina. ADOLPH HOFFMANN. Deutsche med. Wchschr. 9 3, xxviii, 285.
- Incontinence of urine and vaginal prolapse. MURK. Rev. de gynéc. et de chir. abdom., Par. 9 3, ix, Nos. 4 and 5.
- Creation of vagina in case of the congenital absence of the canal by graft of flaps of the intestine: operative technique. QUÉVU and SCHWARTZ. Rev. de chir. Par., 9 3, xxviii, No. 6.
- Plastic repair of the vagina in the congenital absence of the organ. ALBRECHT. Deutsche Ztschr. f. Chir. 9 3, cxlii, Nos. 5 and 6.
- The importance and value of the inverted T-incision in vaginal surgery. SAMUEL W. BARNARD. Med. Rec., 9 3, lxviii, 64. [435]
- Bacilli of the vagina and internal infection. BOHRY. Ztschr. f. Geburtsh. u. Gynäk., 9 3, lxxviii, No. 2.
- Leucorrhoea and gonorrhoea. C. D. R. HARR. Lillingwood Therap., 9 3, vii, 207.
- Practical considerations on vaginal injections in gynecology. DALTON. Clinique, Par. 9 3, viii, No. 3.
- Vaginal irrigation under pressure in gynecological practice before apical operations and in the examination of prostitutes. DUBOW. München. med. Wchschr. 9 3, ix, No. 5.
- Euthione, or laparotomy. KURO. J. Obst. & Gynec. Brit. Emp. 9 3, xlii, 333. [435]

The automatic development of Röntgen ray plates
A. WIEBER. *Mittheil. med. Wochenschr.* 9 3, 15 1914
Hepatoxosis and Nephritis. LITTLE. *Presse med.*
Paris 9 3, 15, No. 51

Radiographic determination of the position of foreign
bodies. GOURTE. *Russk. Vrach.* St. Peterb. 9 3, 15
No. 2

On the exact localization of foreign bodies in the human
body. WERNIGER. *Polstsch. Rund.* 9 3, 15 No. 6

Radiographic measurement of the movement of the
shoulder. STRAUSS. *DELLA ROCCETTA.* *Arch. d'Electr.*
mod., exp. et clin. Bordeaux, 9 3, 15, No. 100

The value of the data furnished by radiography in
thoraco-abdominal affections. DELMAS. *J. d'Prat. med.*
Paris 9 3, 15, No. 5

Decomposition of the solutions of radium and of radium
compounds in the organism after their intravenous and
subcutaneous injection. L. N. LUKAS. *Med. Klin. Berl.* 9
3, No. 5

Foliation after the method of Kienitz. HART. R. M.
LORA. *Nederl. Tijdschr. Geneesk.* Amsterdam 9 3, 15

Clinical contributions on accidents caused by electricity.
M. A. DENTSCHE. *Ztschr. f. Nervenk. Leipzig* 9 3, 15
Nos. 4 & 5

Heliotherapy. L. CHAMPAGNE. *Paris* 9 3, 15 No. 16
Devitalization of the treatment of superficial ulcers
and tuberculous of the bronchial glands. KIL. 12
and FELLE. *Berl. Klin. Wochenschr.* 9 3, 15 No. 5

The employment of heliotherapy at the wound of
wounders. On the 10th. ZINCH. L. BARNES.
Klinisch. Monatsschr. 9 3, 15, 1914

The employment of heliotherapy after interventions.
M. A. DENTSCHE. *Paris* 9 3, 15 No. 16

The fluorine light treatment at the London Hospital.
9 3, 15. J. H. BROWN. *Lancet. Lond.* 9 3, 15, 1914

Military and Naval Surgery

Military surgery. G. M. BARNES. *Am. J. Surg.* 1914
1914, 14

A wound bullet wound. H. A. 1914 and 1. 1914. G. M.
BARNES. *J. Clin. Surg.* 1914, 14

The treatment of gun-shot wounds of the chest. L. L.
B. 1914. *Clin. Med.* 1914, 14

Chief remark on gun-shot wounds of the abdomen, with
report of cases. L. L. B. 1914. *J. South Car. M. Ass.*
1914, 14

Chief remark on the liver with report of cases. H.
B. 1914. *Am. J. Surg.* 1914, 14

Chief remark on the blood vessels. L. L. B. 1914.
1914, 14

Surgical Diagnosis

The importance of acute and chronic neuritis in the
diagnosis of tuberculous inflammatory tumors of the pith.
C. A. 1914. *Polstsch. Rund.* 9 3, 15, No. 5

GYNECOLOGY

Uterus

Uterine affections. G. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Diseases of the uterus and the ovaries and psychoses.
B. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

A large epithelioma involving the uterus and vaginal
cervix. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Uterine cancer. W. P. 1914. *North Am. J. Obstet.*
1914, 14

An early diagnosis of cancer of the uterus. with report
of an hysterectomy in an early case. A. C. 1914. *Canad. J. M. & S.* 1914, 14

The utility of exploratory curettage for the early diag-
nosis of uterine cancer. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

The utility of gynecoscopic examination in cancer of the
cervix of the uterus. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

A case of an extended carcinoma which grew through the
cervix of the uterus and penetrated the rectum. C. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Recovery in case of carcinoma of the uterus demon-
strated by test-curettage. H. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Chorio-epithelioma following hydatidiform mole and
giving rise to intraperitoneal hemorrhage from an extension
in the right ovary. W. A. 1914. *Proc. Roy. Soc. Med.*
1914, 14

Uterine cancer. G. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Contribution to the study of benign chorio-epithelioma
of the uterus and ovaries. F. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Surgical treatment of uterine cancer. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Treatment of operable cancer of the cervix of the
uterus. the present status of the question. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Complete removal of uterine cancer by test curet-
tage. F. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Recent results in the radical operation of uterine
cancer. L. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Means of improving the immediate results of the
radical operation of uterine cancer by the abdominal path.
R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Results of X-ray and mesothoracic treatment of uterine
cancer. E. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

X-ray and mesothoracic treatment of myoma and
carcinoma of the uterus. A. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

A particularly shaped myoma of the uterus. R. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

Experiences with radiotherapy of myomas and of
chorio-epitheliomas of the uterus. L. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

X-ray treatment of myoma and fibroma of the uterus.
H. A. 1914. *Presse med.* Paris 9 3, 15, No. 5

- Pyelitis and its relation to pregnancy. M. VERA. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31a. [441]
- Pyelitis gra. klaron. OTTLE. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31a. [441]
- Etiology and treatment of pyelitis gra. Klaron. KROENKE. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 5. [441]
- Serological and clinical phenomena in pyelitis of pregnancy. I. Antibodies in the maternal and foetal blood in cases of pyelitis of pregnancy. WARELL. *Arch. f. Gynak.* 9 3, 315. [442]
- Concerning peculiar form of glycosuria in pregnancy and its relation to diabetes mellitus. NOVAK and STRISOWITZ. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [442]
- Glycosuria and diabetes from the obstetrical and gynecological point of view. COLOMB. *An. diouet. grec.* Milano, 9 3, xxv. 5. [442]
- Uteri membranacea agniti in pueris nati doct. enterococcus. (ED. E. VROM). *Ann. Puer. M. J.* 9 3, xvi. 793. [442]
- A case of repeated hemiparesis during pregnancy. V. D. BU. *Ann. Locom.* 9 3, xvii. 10. [442]
- A case of rupture of the uterus during pregnancy. SCHULZ. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31. [442]
- A case of extensive rupture of the utero-apical junction with escape of the placenta into the peritoneal cavity. BARNETT. *Proc. Roy. Soc. Med.* 9 3, vi. Obst. & Gynec. Sect., 37. [442]
- Pregnancy and labor complicated by ovarian cysts. SUMER. *Med. Rundschau.* 9 3, n. 314. [442]
- Multiple sclerosis in pregnancy and labor. BIRCH. *Deutsche Zeitschr. f. Nervenhk.* 9 3, xli. 7. [442]
- Placenta previa. SCHREFFEL. *Monatschr. f. Geburtshk.* Gynak. 9 3, xxvii. 878. [442]
- The pathology of premature detachment of the normally attached placenta. LEON. *Monatsh. Landw. u. Forstw.* 9 3, li. 10. [442]
- Surgical treatment of hemorrhages due to separation of the normally and abnormally situated placenta. COVILLI. *J. d. gynec-femmes.* 9 3, xli. 21. [442]
- Bilateral and multiple ectopic pregnancy. McDONALD and KROENKE. *J. Am. M. Ass.* 9 3, li. 766. [444]
- Diagnosis of extra-uterine pregnancy. CURRAN. *Arch. Ital. di gynec. Napoli.* 9 3, xi. No. 5. [444]
- The difficulties in the diagnosis of extra-uterine pregnancy. S. M. BRIDGEMAN. *N. Y. St. M. J.* 9 3, xii. 124. [444]
- The diagnosis and treatment of extra-uterine pregnancy and report of over 100 continuous operative cases. MURPHY. *Therap. d. Gynak.* 9 3, li. 99. [444]
- Extra-uterine pregnancy and its subsequent history: an analysis of one hundred and forty-seven cases. P. WILLIAMS. *Am. J. Obst.* N. Y. 9 3, lixv. 65. [444]
- A case of extra-uterine pregnancy associated with peritoneal hemorrhage and hemoglobinuria. BOWEN. *Russk. Vrach.* St. Petersburg, 9 3, xii. No. 8. [444]
- Extra-uterine pregnancy complicated by normal pregnancy. FARINI. *Policlin.* Roma, 9 3, xii. 24. [444]
- Bilateral extra-uterine pregnancy: total abdominal hysterectomy, oophorectomy. JACO. *Spital. Boctresc.* 9 3, xxxiii. No. 8. [444]
- A case of full-term living child removed by laparotomy in an extra-uterine pregnancy. NORMAN. *Lancet.* Lond. 9 3, clxxvii. 66. [444]
- A primary ovarian pregnancy at the fourth month. McCANN. *Proc. Roy. Soc. Med.* 9 3, vi. Obst. & Gynec. Sect., 20. [444]
- A contribution to the study of eclampsia as a toxicosis of possible osmotic origin. P. WILSON. *Am. J. Obst.* N. Y. 9 3, lixvi. 1. [445]
- The toxicity of the blood in eclampsia and other disorders of the female organism. ENGELMANN and ELPERIN. *Gynak. Rundschau.* 9 3, vi. 3 5. [445]
- Further experience with the expectant treatment of eclampsia. LACROIX. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [446]
- Disturbances of kidney function in eclampsia. KROENKE. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [446]
- The treatment of eclampsia. NACK. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [446]
- The treatment of eclampsia. FREUND. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [446]
- Current opinions concerning the toxemia of pregnancy. WIL. *Praxis.* Am. J. Obst., N. Y. 9 3, li. 685. [446]
- Cesarean section. JOSEPH. *Mittl. Berl. Klin. Wochenschr.* 9 3, li. 375. [446]
- Report of three cases of Cesarean section. A. M. HILGEMANN. *N. Y. St. M. J.* 9 3, xxvii. 242. [446]
- Bacteriological examination in extra-peritoneal Cesarean section. BORDY. *Zeitschr. f. Geburtshk. u. Gynak.* 9 3, lixvi. 11. [446]
- The extra-peritoneal section. SCHREFFEL. *Monatschr. f. Geburtshk. u. Gynak.* 9 3, xxxvii. 880. [446]
- The uterine cavity after the Cesarean section. AVOE. *Ann. de gynec. et d'obst.* Par. 9 3, x. 31 7. [446]
- Inevitable abortion. P. J. WILSON. *Med. Sentinel.* 9 3, xii. 977. [446]
- Criminal abortion. A. BOTTARD. *Enfance.* 9 3, 1. [446]
- Twenty nine cases of attempt at bringing about abortion in falsely diagnosed extra-uterine pregnancy. NICKOL. *Gynak. Rundschau.* 9 3, vi. No. 1. [446]
- Miscarriage and its surgical treatment. MARRIOTT. *Gaz. d. osp. d. clin. Milano.* 9 3, xxvii. No. 67. [446]
- Some unusual obstetrical complications. T. M. LIVING. *N. Y. St. M. J.* 9 3, cvii. 76. [446]
- The obstetrical significance of the status hypoplasticus. E. VOOR. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31a. [447]
- The obstetrical and gynecological significance of tetany. KROENKE. *Arch. f. Gynak.* 9 3, xlii. 372. [447]
- ### Labor and Its Complications
- An analysis of 700 cases of labor. R. CONROX. *J. Am. M. Ass.* 9 3, li. 503. [447]
- Fever during delivery; obstetric indications for its treatment. THAMMEL. *Arts. obstet.* 9 3, xxvii. 70. [448]
- Pelvic outlet tumors. hindrance in child-birth. KROENKE. *Med. Rundschau.* 9 3, iv. 343. [448]
- Hemangioma of the arm as an obstacle in delivery. FRANK. *München. med. Wochenschr.* 9 3, li. 40. [448]
- What can be accomplished with the method of Deverrier-Müller for the delivery of the shoulder? ZINGULI. *Beitr. z. Geburtshk. u. Gynak.* 9 3, xvi. 371. [448]
- A maneuver for the correction of face presentation. ZANDGRIFF. *Deutsche Gesellschaft f. Gynak.* Halle, 9 3, 31 7. [448]
- A case of rupture of hydrocele during delivery. DZ. *Ann.* Prag. lek. Kralow. 9 3, li. No. 3. [448]
- Death due to rupture of oesophageal varices occurring during labor. RIZZACCA. *Gloem. internaz. d. sc. med.* 9 3, xxv. 301. [448]
- Fatal intraperitoneal hemorrhage during labor due to rupture of uterine rim. ERWIN. *Lancet.* Zentralbl. f. Gynak. 9 3, xxxvii. 157. [448]
- Medical treatment for weak labor during parturition. HA. *Rundschau.* Deutsche med. Wochenschr. 9 3, xxxii. 747. [449]

The galvanisation treatment of the uterus according to Bayer in conjunction with phlorizin as means for the artificial induction of premature labor and labor terms. *Vorträge. Med. Klin., 1913, 21, 690.* [449]

Indications for the high forceps operation. *Hilfsmittel. Ost. W. M. Sem. Monat. 9, 3, xxviii, 6.*

Subcutaneous symphysectomy of Frank. *Klinische. Arch. f. Gynäk., 9, 3, xxi, 294.* [450]

Puerperium and Its Complications

Three cases of symmetrical necrosis of the cortex of the kidneys, associated with puerperal eclampsia and suppression of urine. *JACOBSON and KROEMER. Lancet, Lond., 9, 3, clxxxv, 30.* [450]

A critical review of the medical and surgical treatment of puerperal eclampsia. *E. G. ZIEGLER. Am. J. Obst. N. Y., 9, 3, lxxv, 605.*

The results of new researches on puerperal fever. *O. BOHRER. Monatsschr. f. Geburtsh. u. Gynäk., 19, 3, xxxviii, 8.*

Clinical and experimental investigations concerning the action of oxytocic substances during the puerperium. *RHEINBERG. München. med. Wchnschr., 9, 3, lx, 637.* [450]

Differential diagnosis and treatment of puerperal infection. *R. H. HOOVER. Pace M. J., 9, 3, xvi, 605.* [451]

Advanced treatment of puerperal infection. *ROSE, T. OLLINGER. J. Am. M. Ass., 9, 3, lx, 955.*

A case of puerperal infection cured by operation. *BIRT. München. med. Wchnschr., 9, 3, lx, No. 24.*

Prophylaxis of puerperal infection. *SCHWENNINGER. Deutsche Gesellschaft. f. Gynäk., Halle, 9, 3, May.* [451]

Puerperal tetanus. *R. WIGGALL. Australia. M. Gaz., 9, 3, xxxviii, 464.*

Localizing peritonitis of puerperal origin. *H. T. HARRIS. J. Obst. & Gynec. Brit. Emp., 9, 3, xxi, 500.*

The significance of post-partum hemorrhages. *SCHWENNINGER. Monatsschr. f. Geburtsh. Gynäk., 9, 3, xxxviii, 873.*

Puerperal insanity. *STROGART. Clinical J., 9, 3, xliii, 80.* [451]

Miscellaneous

The relations of affections of the heart to pregnancy, delivery and puerperium. *FABRICIUS. Deutsche Gesellschaft. f. Gynäk., Halle, 19, 3, May.* [454]

Scrum diagnosis of pregnancy. *ZIEGLER. Deutsche Gesellschaft. f. Gynäk., Halle, 19, 3, May.* [452]

The biological diagnosis of pregnancy by the aid of the optic and dialytic methods. *RHEINBERG. Deutsche Gesellschaft. f. Gynäk., Halle, 19, 3, May.* [452]

The diagnosis of pregnancy by Abderhalden's method. *POISSON. Straßburger d. physikal.-med. Ges. Würth., 19, 3, 0, 3.*

Abderhalden's dialytic procedure. *LEHMANN. Deutsche Gesellschaft. f. Gynäk., Halle, 9, 3, May.* [452]

Dry placental powder and its employment in Abderhalden's dialytic procedure for the diagnosis of pregnancy. *V. L. KIRK. München. med. Wchnschr., 9, 3, lx, 98.*

The zero diagnosis of pregnancy by the dialytic method. *C. F. JELLINEK and J. R. LOEY. Bull. Lyring-Hosp., 9, 3, lx, 66.*

The diagnosis of pregnancy by means of the dialyses and the optical method. *East. American. Gynäk. Rundschau, 9, 3, vii, 467.*

Studies of the reaction of Abderhalden's serum. *B. ABRON. Berl. klin. Wchnschr., 9, 3, 4, 242.*

Abderhalden's pregnancy reaction. *F. HERRMANN. Berl. Klin., 9, 3, xvi.*

Artificial and natural conditions causing the Abderhalden reaction, and their significance. *FAWST HERRMANN and T. PIRAT. München. med. Wchnschr., 9, 3, lx, 150.*

Experimental research on the physiology of the hypophysis. *SCHNITZER. Deutsche Gesellschaft. f. Gynäk., Halle, 9, 3, May.* [453]

Chemical experiments with pituitary. *BARVER. Med. Klin. Berl., 9, 3, lx, 457.* [453]

Organotherapeutic value of adrenalin in pregnancy. *ZAKHAROVSKI. Ann. d'hist. scienc. Milano, 9, 3, xxxv, 247.* [453]

The value of the caput succedaneum as sign of "fetal reaction." *ZIMMER. Vierteljahrsschr. b. gerichtl. Med., 9, 3.* [453]

Modern ethanol with special reference to B-methylol-lithylation. *C. KOEN. Zentralbl. f. Gynäk., 9, 3, xxxviii, 584.* [454]

The diagnostic employment of the Röntgen rays in obstetrics. *HERRMANN. Zeitschr. f. Geburtsh. u. Gynäk., 9, 3, lxxviii, No. 1.*

Pelvic measurement by means of X-rays. *DELMAYER. Deutsche Gesellschaft. f. Gynäk., Halle, 9, 3, May.* [453]

Diagnostic and therapeutic employment of aspiration, by means of the footsuckle, of obstetrical hemorrhages of the new-born. *HILFINGER. Zentralbl. f. Gynäk., 19, 3, xxxviii, No. 25.*

The significance of meconium in dissections of the new-born. *G. G. PIZZARRO. Riforma med., 9, 3, xxi, 3, 1.* [454]

The nutritive value of colostrum: contribution to the nursing's requirement of energy during the first days of life. *L. LAPOINTE, F. ROTT and F. EISENBERG. Zeitschr. f. Kinderheilk., 9, 3, vii.*

The employment of extracts of the hypophysis in obstetrics and gynecology. *METZGER. Arch. mens. d'obst. et de gynäk. Par., 19, 3, 2.*

Pituitin in obstetrics. *J. K. QUINCY. N. Y. St. M. J., 9, 3, xii, 3, 7.*

The chemistry of the action of pituitrin. *GERMANN. München. med. Wchnschr., 9, 3, lx, 1495.*

Pituitin as an aid in labor. *ALFRED DEUTSCH. Wchnschr. med. Wchnschr., 9, 3, lx, 567.*

Detachment in obstetrics and normal detachment of the placenta. Remarks in regard to the work of C. SICERT. *FERNANDEZ GAUS. Deutsche med. Wchnschr., 19, 3, xxxv, 1363.*

Placental infarct and intra-uterine under nourishment. *TAMM. Monatsschr. f. Geburtsh. u. Gynäk., 9, 3, xxxviii, 860.*

Complicated deviation by corpus lutea secretion. *J. T. SMITH. Am. J. Obst., N. Y., 9, 3, lxxv, 3007.*

Some obstetric observations pertaining to internal secretion. *W. H. GOOD. Am. J. Obst. N. Y., 9, 3, lxxv, 300.*

The toxicity of the urine during pregnancy labor and puerperium. *FRANK. Deutsche Gesellschaft. f. Gynäk., Halle, 19, 3, May.* [454]

Generation as induced by isthmocele. *F. KACKER. Zeitschr. f. d. Neurol. Psychiatr., 9, 3, xvi, 474.*

Further observations upon birth fractures. *ERW. D. TREIBMANN. Bull. Lyring-Hosp., 9, 3, lx, 103.*

The intra-abdominal pressure in pregnancy. *R. H. PARSONS. Lancet, Lond., 19, 3, clxxxv, 466.*

Lower arm type of obstetric (brachial) paralysis: report of case. *R. H. FOWLER. Internat. J. Surg., 1913, xxx, 294.*

On the pressure experienced by the fetus in utero during pregnancy with special reference to schizothorax.

- (chondrodysplasia foetalis) D. H. Hux. *Edinb M J* 9, 2, 495.
 The origin of the synsial lacuna in human ova. HIRSELMAN. *Deutsche Gesellschaft f. Gynak. Halle* 9, 3, 143.
 Cervical decidua. T. W. LYNN. *Surg. Gynec. & Obst.* 19, 3, 171, 691.
 Urine analysis in urology. D. C. DOUGLASS. *Gla. surgeon* 9, 3, 171.
 Problems of obstetrical treatment. W. W. CHURMAN. *J. Maine M. Assn.* 9, 3, 356.
 Remarks on Rother's method of curing contracted

- pelvis. E. GERSTENBERG. *Zentralbl. f. Gynak.* 19, 3, 437.
 Concerning leucotomy. L. A. KRAWITZ. *Monatschr. f. Geburtsh. u. Gynak.* 9, 3, 437.
 An obstetrical instrument. ROSE. *Schmitt's. München. med. Wchnsch.* 9, 3, 437.
 Investigations as regard to the so-called glandular endocrine myometrium. FRAENKEL. *Arch. f. Gynak.* 9, 3, 437.
 Statistics of Chinese polioidia. VORTMEYER. *Arch. f. Schiffs- u. Tropen. Hyg.* 9, 3, 437.
 435

GENITO URINARY SURGERY

Kidney and Ureter

- Recent studies of the adrenal glands. I. M. LUCAS. *Prag. med. Wchnsch.* 9, 3, 437.
 Benign lipoma of the suprarenal. WILKINSON. *Brit. J. Path. Anat.* 19, 3, 171.
 Estimation of the suprarenal capsules in disease in parabiosis. MOORE. *Geogr. d. Acad. de med. de Torino* 9, 3, 171.
 Radiogenetical diagnosis in disease of the kidneys. A. BRACHMANN. *Fortachr. d. Geb. d. Röntgenstr.* 9, 3, 437.
 Bilateral lithiasis. OTHMAN. *C. Smith. N. Y. M. J.* 9, 3, 437.
 Notes on two cases of urinary calculus. C. A. MOORE. *Brit. Med. Chir. J.* 9, 3, 437.
 Radiography in the diagnosis of nephrolithiasis. KLEIN. *Wchnsch. Berl. klin. Wchnsch.* 9, 3, 437.
 On the differential diagnosis of appendicitis and nephrolithiasis. KUROKAWA. *Calif. M. J.* 9, 3, 437.
 A case of pseudo-calculus in the X-ray picture. POTT. *Geogr. d. Acad. de med. de Torino* 9, 3, 171.
 Calculus of the renal pelvis: pyelotomy recovery. BRACHMANN. *Bull. med. de l'Algérie* 9, 3, 437.
 Three cases of large renal calculi which had remained absolutely latent. POTT. *J. d'Urol. Par.* 9, 3, 437.
 Biliary calculi causing errors in renal radiography. ANGLADE. *Lyon med.* 9, 3, 437.
 Experiment on the influence of an injured kidney on the kidney of the other side. K. ISHIDA. *Mitt. d. Grenzgeb. d. Med. Chir.* 9, 3, 437.
 What should be the diagnosis of the contusions of the kidneys? TOUSSAINT. *J. d'Urol. Par.* 9, 3, 437.
 Floating kidney in polycystic degeneration. CARLO. *Chir. Chir. Milano* 9, 3, 437.
 The operative treatment of floating kidneys. KROGER. *Cor. d. f. ch. d. Anat.* 9, 3, 437.
 Double-kidney. J. L. HERRMAN and GROSS. *Fortschr. Ann. Surg., Phila.* 9, 3, 437.
 Degeneration of the cells of the kidney as result of permanent obstruction of circulation. TUCK. *Brit. J. Path. Anat. u. allg. Path. Jena* 9, 3, 437.
 The opportunity for new method of controlling renal hemorrhages. GROSS. *Rev. op. Roma* 9, 3, 437.

- A case of hematuria difficult to interpret etiologically (hydro-pyru-hematuria). SAVIERO. *Rev. op. Roma* 9, 3, 437.
 Cancer of the kidney and thrombosis of the vena cava. GAYET and BLANCHET. *Lyon chir.* 9, 3, 437.
 Renal neoplasm of the size of cherry revealed by bismuth hematuria. ASPRECTION. *J. Urol. Par.* 9, 3, 437.
 The etiology of kidney cysts. J. R. CATTLE. *Ann. Surg., Phila.* 9, 3, 437.
 A case of hydronephrosis of the kidney. J. ACT. *Pöschel. Roma* 9, 3, 437.
 Cystic kidney. VERRI. *München. med. Wchnsch.* 9, 3, 437.
 The cystic kidney studies regarding its pathologic anatomy. O. BERGER. *Kristiania. Ull. Verlag* 9, 3, 437.
 The infectious diseases of the kidney and urinary passages (excluding tuberculosis). EDWARD SCHMIDT. *Abhandl. d. Ges. d. prakt. Med.* 9, 3, 437.
 Radiogenetical demonstration of paranephritic abscesses. L. KOLL. *Fortachr. d. Geb. d. Röntgenstr.* 9, 3, 437.
 Hydronephrosis. SCHIFFER. *Monatschr. f. Geburtsh. u. Gynak.* 9, 3, 437.
 A case of post-operative perinephritis serosa. A. BACHMANN. *Zsch. f. Gynak. Urol.* 9, 3, 437.
 Chronic nephritis from the point of view of surgery. J. MICHAUD. *Thèses de Lyon* 9, 3, 437.
 Operative indications in chronic nephritis. TOUSSAINT. *J. d'Urol. Par.* 9, 3, 437.
 The present standpoint in regard to nephritis and nephritic surgery. E. KLOTZ. *Ergebn. d. Chir. u. Orthop.* 9, 3, 437.
 Pathology and treatment of pyelitis. K. R. URSAN. *Pract. Vrach. St. Petersburg* 9, 3, 437.
 The treatment of pyelitis by the aid of local treatment. RABINOWITZ. *Rev. op. Roma* 9, 3, 437.
 Contribution to the study of pyelitis granulosa. W. BARTHELEMY. *Zsch. f. Urol. Chir.* 9, 3, 437.
 Tuberculosis of the kidney. RABINOWITZ. *Canad. Pract. & Rev.* 9, 3, 437.
 Renal tuberculosis report of case. A. H. LIPPINCOTT. *J. Med. Soc. N. J.* 9, 3, 437.
 Encysted tuberculosis of the kidneys. L. CASPER. *Zsch. f. Urol. Chir.* 9, 3, 437.
 Surgery in renal tuberculosis. POSENER. *Pöschel, Roma* 9, 3, 437.

NOVEMBER 1913

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH

Journal de Chirurgie, Paris

Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete Berlin

Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete Berlin

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER Berlin

B. G. A. MOYNIHAN Leeds

PAUL LECÈNE, Paris

EUGENE S. TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J. DUMONT Paris

EUGENE JOSEPH, Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wylys Andrews Willard Bartlett Frederic A. Bealey Arthur Dean Bevan J. F. Bland Georg E. Brewer W. B. Beismade John Young Brown David Cheever H. R. Chislet Robert C. Coffey F. Gregory Connell Frederic J. Cotter George W. Crile W. R. Cabbins Harvey Cushing J. Chalmers DeCosta Charles Davison D. N. Elsendrath J. M. T. Flaney Jacob Frank Charles H. Frazier Emanuel Friend Wm. Fuller John H. Gibbon D. W. Graham W. W. Grant A. E. Halstead M. L. Harris A. P. Hettrick William Hensert Thomas W. Huntington Jacob N. Jackson R. S. Judd C. E. Kahleke Arthur A. Law Robert G. Le Conte Dean D. Lewis Archibald Maclearen Edward Martin Rudolph Matas Charles H. Mayo William J. Mayo John R. McDerm

(Editorial Staff continued on page 4, 51 and 52)

Editorial communications should be sent to Franklin H. Martin Editor 31 N. State Street, Chicago

Editorial and Business Offices: 31 N. State Street, Chicago Illinois, U. S. A.

Publishers for Great Britain: Balliere Tindall & Cox 8 Haverhill St. Covent Garden, London

- New data on the etiology of hydronephrosis. *Mikhaïlov Ztsch f Urol* 9 3, vii, No. 6.
- Traumatic hydronephrosis. IV LARSEN. *Danske Med. Soc. Publ.*, 9 3, vii, 879. [497]
- A case of right-sided interstitial hydronephrosis caused by a secondary renal artery; operative removal of aneurysm. O. ALBRECHT. *Nord. med. Ark.*, 9 3, xi, No. 6. [440]
- Syphils of the kidneys. A. WELS. *Deutsche med. Wochenschr.* 9 3, xxi, 20.
- Renal gonorrhea. C. M. HANSEN. *Ohio St. M. J.* 9 3, xi, 869.
- The cause of pain in pyelography with report of accident and experimental findings. C. E. TENDON. *Ann. Surg. Phila.* 9 3, lvi, 833. [440]
- Decapsulation of the kidney. W. K. WATSON. *Chir. Arch. Veltschova*, 9 3, xxi, 30. [440]
- Nephrectomy followed by immediate decapsulation of the remaining kidney. SCHMIDT. *Geor. d. Acad. de med. di Torino*, 10 3, lxxi, No. 6.
- Pyelotomy. Or. von. *Ztsch f. Urol.* 9 3, No. 6.
- An experimental study of several methods of suturing the kidney. J. A. E. MOORE and J. F. CORREY. *Ann. Surg. Phila.* 9 3, lvi, 860. [441]
- Experimental investigations on the physiology and pathology of renal function. BASTEN. *Arch. f. exp. Path. Pharm. Leipz.* 9 3, lxxi, No. 5.
- Functional tests performed on transplanted kidneys. LORENZ. *Herrn. Mitt. d. Grenzgeb. d. Med. Chir. Jena*, 9 3, xxi, No. 6.
- Bilateral ureteroligotomy in calculus surgery. A. LAWRENCE. *Brit. M. Chir.* 9 3, lxxiv, 4. [441]
- Congenital malformations of the ureter (double ureter with agnath orifice). PRINZ. *Rev. esp. Quim.*, 9 3, ix, No. 6.
- Cases and operative treatment of supernumerary aberrant ureters. HANSEN. *Ztsch f. Urol.* 9 3, vii, 439. [441]
- Clinical study of stenosis of the ureter (wide stenosis). DIERCK. *J. d'Urol. Par.* 10 3, ix, No. 6.
- Obstruction of the ureter by aberrant renal vessels: clinical study of the symptoms and results of operation. J. HUTCHINSON. *Proc. Roy. Soc. Med.* 10 3, i, Surg. Sect. 20. [442]
- Contributions to the study of interstitial ureteric stenosis. B. OTTE. *Ztsch f. gynäk. Urol.* 9 3, iv, 243. [442]
- Cystic dilatation of the vesical end of the ureter. LORENZ. *Ztsch f. Urol.* 9 3, vii, 37. [442]
- The local treatment of retention of urine and pus in the kidney by means of urethral catheterization. P. ZUCKERKANDL. *Wien. med. Wochenschr.* 9 3, lxxi, 1345. [442]
- Permanent or temporary derivation of the urine by means of nephrostomy. PARONSKI. *Thèse de doct.* Par. 9 3. [442]
- A small muscle splitting incision for the exposure of the pelvic portion of the ureter. FRANK KIDD. *Lancet, Lond.* 9 3, clxxx, 378. [443]
- The instruments used and the technique in posterior urethroscopy. HERR. *J. d'Urol. Par.* 9 3, ix, No. 6. [443]

Bladder Urethra and Penis

- Where is the fundus of the bladder? B. LARSEN. *J. Am. M. Ass.* 10 3, ix, 745. [443]
- The operative treatment of rebellious cystitis cases with retention of the bladder and temporary urinary fistula. H. URENBURG. *Wehr. u. klin. Chir.* 9 3, lxxiv, 5. [443]
- Contribution to the treatment of ectropion of the bladder. LIND. *J. de chir.* 9 3, x, 449. [443]

- Mlayd's operation in ectropion of the bladder. KORT. *Pract. Vrach.* St. Petersburg, 9 3, vii, No. 22.
- The surgical treatment of ectropion of the bladder. VULLIET. *Lyon chir.* 9 3, ix, No. 6.
- Excision of the bladder. ORTEL. *Arch. d. chir. Klin. d. Prof. Oppel.* St. Petersburg, 9 3, iv, 3. [444]
- A clinical study of the application of improved intra-vesical operative methods in diagnosis and therapy. LEO BURKARD. *Med. Rev.* 9 3, lxxviii, 14. [445]
- Epycystostomy in vesical calculus and new method of suturing the bladder. DR. FRANCO. *Gazz. med. Ital.* Torino, 9 3, lx, No. 24.
- Cases of urethral calculus: prostatic division. D. L. HINCHCLIFF. *J. Am. M. Ass.* 9 3, ix, 1952.
- Note on case of urethral calculus of unusually large size. E. A. WALKER. *Lancet, Lond.* 9 3, clxxx, 317.
- A case of double urethra. TROVATSKY. *Russk. Vrach.* St. Petersburg, 9 3, xii, No. 6.
- Concurrent stenosis of the urethra. KUPFER. *Arch. f. klin. Chir.* 9 3, cl, No. 3.
- Experience with over one thousand cases of form of chronic urethritis. S. H. LEVIN and HENRIK SCHWARTZ. *J. Am. M. Ass.* 9 3, ix, 940.
- Gonorrhea from pathological standpoint. GEORGE A. WYCK. *N. Y. M. J.* 9 3, xvii, 7.
- The effect of gonorrheal infections upon the prostatic-urinary tract. C. S. HUNTER. *Am. J. Urol.* 9 3, ix, 213. [445]
- The treatment of gonorrhea in the male. D. T. MINER. *Urol. u. Gyn. Rev.* 9 3, viii, 9 6.
- A curious case of urethral tuberculosis, invasion of the mucous membrane of the urethra. MAJUMDAR. *Gaz. med. de Bombay*, 10 3, xxi, No. 2.
- Mentation and projection of the posterior urethra and vesical floor by means of posterior urethral calipers and radiography. VICTOR C. FINKELSTEIN and LEON O. COLE. *N. Y. M. J.* 9 3, xviii, 73. [446]
- The comparative value of cystostomy and urethrotomy in operations on the urethra. R. H. SM. A. *Am. J. Urol.* 10 3, 277. [446]
- Primary tuberculosis of the glans penis. LORENZ. A. *Berlin. Ann. Surg. Phila.* 9 3, lxxv, 864.
- On the formation of bores in the human penis. A. G. GRANT and F. S. MANNING. *Ann. Surg. Phila.* 9 3, lvi, 860.
- Erosion and gangrenous balanitis, the fourth venereal disease. B. C. COLLIER. *J. Am. M. Ass.* 9 3, ix, 769.
- Marsupial pseudobalanoprophimosis. GUTTENBERG. *Munchen. med. Wochenschr.* 9 3, ix, 5 6.

Genital Organs

- New researches concerning the internal secretion of the testicles. MARSHALL. *Publ. Chem. Soc.*, 9 3, xi, No. 6.
- Hemorrhagic infarcts of the testicles. MASON. *Med. Clin. Berl.* 9 3, vi, 869.
- T. herniation of an ectopic testicle. FINKEL. *J. d'Urol. Par.* 10 3, ix, No. 6.
- Scrotal epithelioma (new-growth of the testicle). L. P. SCHWARTZ. *Arch. d. chir. Klin. d. Prof. Oppel.* St. Petersburg, 10 3, iv.
- Ectodermoma of the testicle in young soldier. SAKURAI and DUBOIS. *Arch. de méd. et de pharm. mil. Par.* 9 3, lvi, No. 6.
- Eurochordoma. TARDIER. *Wien. med. Wochenschr.* 9 3, lxxi, No. 3.
- Comparative study of the treatment of acute gonorrheal epididymitis with antihemorrhagic serum. SCHWARTZ. *Thèse de doct.* Par., 9 3. [446]
- Tuberculosis of the epididymis, its effect upon testicles.

- and prostate. J D B. *Expt. Boston M & S. J.* 10:3, 447.
- Epididymitis: its nature and treatment. E. J. *Angell. Am. J. Clin. Med.* 9:3, 49.
- A histopathological study of gonorrheal epididymitis and its treatment. NAKANO. *Zschr. f. Urol.* 9:3, vii, 6.
- The treatment of gonorrheal complications particularly epididymitis gonorrheica, with electrolum. JULIUS FORTM. *Dermatol. Wchnsch.* 9:3, 639.
- Affection of the colliculus seminales. A. WARSZEW. *Dissertation, St. Petersburg.* 9:3.
- The question as to the use of autoserotherapy in cases of infectious. ZOLNICK. *Zschr. f. Urol.* 9:3, ii, 356.
- Affections of the prostate. POISSON. *Med. Klin. Berl.* 9:3, ix, Nos. 3 and 5.
- Prostatic lectrolysis. LARSEN GILLIAT. *Gas. hebdom. d. sc. med. de Bordeaux.* 9:3, xxxv, N. 3.
- Total prostatectomy in the so-called prostatic hypertrophy. GILBERT. *Dissertation, St. Petersburg.* 9:3, 447.
- Non-operative treatment of prostatitis: author's method. W. B. BROWN. *Urol. & Cutan. Rev.* 9:3, xviii, 3.
- Present status of prostatic surgery. C. D. LOCK. *Conn. Cklt. St. J. Med.* 9:3, ix, 29.
- Immediate secondary recovery from cystotomy on account of transvesical prostatectomy. GROSZ. *Urol. Gazz. d. osp. d. clin. Milano.* 9:3, xxxv, N. 66.
- Restoration of the bladder function after prostatectomy. JOE B. BIRNELL. *Internat. J. Surg.* 9:3, xi, 91, 447.
- Ten new cases of suprapubic prostatectomy. LORENZO DE S. ERMENE. 9:3, xxxv, No. 6.
- Prostatectomy with special reference to the subjects. J. E. MORGAN. *Surg. Gynec. & Obst.* 9:3, xi, 63.
- A case of irritation of the scrotum. V. O. LUK. and SAVENKO. *J. de chir. de Bucarest.* 9:3, No.

Miscellaneous

- Points in diagnosis of certain urinary diseases. A. W. NIKOLSON. *Lancet-Clin.* 9:3, cix, 63.
- Experimental study concerning bacillus coli infections of the urinary organ. OTTO HENS. *Mitt. a. d. Grenzgeb. d. Med. Chir.* 9:3, xvi, 35.
- Bacteriological findings in affections of the extra-renal urinary tracts in children and adults. H. KODAMA and N. KRAYNOVSKIKI. *Zentralbl. f. Bakteriol.* 9:3, lxxv, 8.
- Intaperitoneal lesions of the urinary organs. M. BOUTIER and P. KAYO. *Beh. Ann. Chir.* 9:3, lxxv, 347.
- Injurious effect of chemicals upon spermatozoa. OSCAR HENNING. *Sitzungsber. d. kgl. preuss. Akad. d. Wiss. Physikal. mathem. Kl.* 19:3, xxx, 544.
- Silver iodide emulsion, new medium for radiography of the urinary tract. HOWARD A. KELL and ROBERT M. LEWIS. *Surg. Gynec. & Obst.* 9:3, xvi, 707.
- Radiology in urology. R. Y. A. PULINO. *Rev. esp. de electrol. y radiol. med. Valencia.* 9:3, ii, 5.
- Bacteriological research in its relation to genito-urinary surgery. G. FRANK LESTON. *Illness. M. J.* 9:3, lxxii, 605.
- The special position of staphylococci of the urinary tract. B. GOLDBERG. *Zschr. f. Urol.* 9:3, vii, 447.
- Specific diagnosis and treatment of tuberculous of the urinary and genital organs. MACHAROVSKY. *Novos v med. St. Petersburg.* 9:3, vii, N. 8.
- The excretion of formalin in the urine: an inquiry into the accuracy of Bornani's test. GEO. W. BARTLE. *Boston M. & S. J.* 9:3, cixviii, 73.
- Determination of the occurrence of lactic acid in the urine. M. DÜPPEL. *Biochem. Zschr.* 9:3, ii, 993.

SURGERY OF THE EYE AND EAR

Eye

- Intra-ocular foreign bodies. TERRY. *Progress med. Par.* 9:3, xiv, N. 24.
- Use of non-magnetic steel in the vitreous body. I. ALPHEE and ALICE ROCKWELL. *Ophthalm. Rec.* 9:3, xxi, 596.
- Endophthalmitis from hemorrhage. JAS. M. B. *U. I. Terr.* 9:3, xv, 331.
- The etiology, diagnosis, and treatment of glaucoma. L. H. LARSEN. *Med. Fortschritt.* 9:3, xix.
- Epithelioma, dyskeratoma, and trachoma. LARSEN. *American M. Gaz.* 9:3, xxvii, 54.
- Rarity of sarcoma of sclera: report of case with removal and no recurrence. R. M. NICKSON. *J. Am. M. Ass.* 9:3, ix, 766.
- Chronic inflammatory tumor formation of the orbit. MILLER. *Arch. f. Ophthalm.* 9:3, lxxv, 46.
- The catarrh operation. J. G. HUNTING. *J. Mich. St. M. Soc.* 9:3, ix, 309.
- A case of pulsating exophthalmos. G. O. H. M. THOMSON. *Ophthalm. Rec.* 9:3, xxi, 304.
- A case of gonorrhea of the eye and the use of salvarsan. A. BIA. *Ophthalm. Rec.* 9:3, xxi, 300.
- The treatment of iritis. G. W. V. *Ann. Int. Therap.* 9:3, ii, 8.
- Concerning dermato- and dermo-lypoma of the conjunctiva. W. B. WUNDER. *Ophthalm. Rec.* 9:3, xxi, 29.

A lecture on Niber's dystrophy. T. LUTHER LUTWELL.

- Brit. M. J.* 9:3, i, 399.
- Sympathetic ophthalmia in occupational accidents. GENTONOV. *Progress med. Par.* 9:3, xiv, No. 3.
- Optic iridectomy. L. K. BAKER. *Cleveland M. J.* 9:3, xi, 444.
- The height of brain pressure in some eye diseases. HENRI MITSCHEN and WICHNER. 9:3, ix, 1395.
- Concussion under ciliary ganglion anastomosis. J. S. W. *Lancet-Clin.* 9:3, cix, d. 3.

Ear

- Hemorrhage of the auditory canal. A. QUADRI. *Rev. de l. med. argent.* 9:3, xxi, 36.
- Middle pulpitis of both external auditory meatus. BLAVI. *Zschr. f. Ohrenh. u. f. d. Krimh. d. Luftwege.* Wnsh. 9:3, lxxv, Nos. 4 and 5.
- Otitis externa and serious extravasation of the auricle. BOUTIER. *Rev. med. Par.* 9:3, xxi, No. 1.
- Experimental studies on the pathology of acute inflammatory processes in the middle ear. HARTMAN. *Arch. f. Ohrenh. Leips.* 9:3, ix, No. 4.
- Inflammation of the middle ear and perforation, cysts and abnormal bone formations at the base of the brain. RIEDEL. *Mitschen. and Wichner.* 9:3, ix, 148.
- Chronic otitis of the middle ear and its treatment. KLA. *Allg. med. Zentralztg.* 9:3, lxxii, No. 2.

TABLE OF CONTENTS

I. INDEX OF ABSTRACTS OF CURRENT LITERATURE	iii
II. AUTHORS	iv
III. ABSTRACTS OF CURRENT LITERATURE	497 573
IV. BIBLIOGRAPHY OF CURRENT LITERATURE	574 596

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

Anesthetics

KRUEGER, L. Intratracheal Ether Anesthesia	497
McMILLAN, O. Oxygen and Anesthesia	497
BENCK, Experiments with Anestheticum Novum	497
SCHULTZ, Magnesium Narcosis	497

SURGERY OF THE HEAD AND NECK

Head

SEIDT, H. Successful Treatment of Cancer of the Face by Simple Puncture with Ferrus Oxide	498
MURPHY, J. B. Ankylosis of the Jaw—Interposition of Flaps from Mucosa of the Mouth	498
PARA, R. Conchoidal Dura from Quarter Century's Work in Brain Surgery	498
NOBLE, W. A. A New Way of Attaching the Hypopharynx	499

Neck

VON M. THIERHAUSER, T. The Treatment of Scrofulous Lymphatic Glands of the Neck	499
MURPHY, G. The Effect of Thyroid Gland upon Blood Formation—Contribution to the Physiology of the Thyroid Gland	499
SOLANO, G. Osteosarcoma of the Thyroid Gland	500
GUTH, G. Echinosuccus Cyst of the Thyroid	500
JACZY, F. The Combination of Thyroid and Nephroses	500
MAY, C. H. Surgery of the Thyroid—Observations on Five Thousand Operations	50
FORSTER, I. Injection of Boiling Water in the Treatment of Hyperthyroidism	50
DEPOUR, P. T. Cases of Hemithyroidectomy for True Esophagogastric Goiter of Tubercular Origin	50
LEITCH, H. Basedow's Disease	50

SURGERY OF THE CHEST

Chest Wall and Breast

E. Cancer of the Breast	503
RITTER, The Prognosis of Cystadenoma of the Breast	503

GOULDON, Bilateral Sterno-Clavicular Dislocation of Congenital Origin	503
SCHERERMAN, E. Thoracotomy and Hydrothorax	503
SCHULZ, H., AND PLASCHKE, S. The Indications for Artificial Pneumothorax in Pulmonary Tuberculosis	504
KATHMAN, K. The Technique of Artificial Pneumothorax	504
TURPIN, T. Final Result of an Intrathoracic Subpleural Graft in Case of Intrapulmonary Suppurative Cavity on the Right Side	505
Trachea and Lungs	
DEJOURNEMENT, S. F. Artificial Breathing Continued Successfully for Fifteen Days	505
PERAIN, G. Pulmonary Embolism as Cause of Post Operative Death	505
Heart and Vascular System	
JACOB, O. The Treatment of Tubercular Pericarditis by Pericardiotomy	505
Pleura and Esophagus	
GUTH, Congenital Stenosis of the Esophagus	506
GERMANN, A. Case of Esophagitis Desquamans Following Poisoning by Arsenic Acid	506
ROTH, T. M. Types of Occlusion of the Esophagus in Early Life	506

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

MURPHY, J. B. Desmoid Tumor of Rectus Muscle	506
PAOTING, K. Rehn Treatment of Peritonitis	507
BLANCH, Calcified Oil in Peritonitis and Abscesses in the Pouch of Douglas	507
HARTER, F. Tubercular Peritonitis	507
STOCKES, S. The Employment of Tincture of Iodine in Dry Peritoneal Tuberculosis	507
REYNOLDS, A. G. Tubercular Peritonitis and Its Operative Treatment	507
FRIEDMAN, L. Retrograde Incarceration—Hysteroptosis	508
PERI, A. New Case of Hernia Sobrarenalis	508
S. VITTO, A. A Rational Deep Suture for Bassini's Operation	509

- GUNDERMAY, W. The Significance of the Omentum in Physiological and Pathological Conditions 509
- SCHMIDT, V. Circumscribed Inflammatory Tumor Formation in the Pelvis, Originating from the Greater Omentum 509
- FRASER. Mesenteric Cysts, 11th Report of Case of Serousous Cysts of the Mesentery of the Small Intestine 509
- C. ETOLINI, F. Mesenteric and Retroperitoneal Blood Cysts 5
- Gastro-Intestinal Tract**
- CAROT, P. Movements of the Stomach and Duodenum Studied by the Perforum Method 5
- WHITT, J. W. AND GREGG, A. W. The X-Ray Method in Diagnosis of Gastric and Duodenal Ulcer 5
- MILLS, R. W. AND CARR, R. D. The X-Ray in the Diagnosis of Gastric Ulcer and Its Sequelae 5
- RÖPKE, W. Chronic Gastric Ulcer in the X-Ray Picture of the Air-Inflated Stomach 5
- STEINWARTER. A Preliminary Note on the Experimental Production of Gastric Ulcers by the Intravenous Injections of Clumped Colon Bacilli 5
- DEAYER. Posterior Gastrojejunostomy in Acute Perforative Ulcer of the Stomach and Duodenum 5
- TRUESDALE. Cancer of the Stomach 53
- THOMSON AND GRAHAM. Fibrosarcoma of the Stomach and Its Relationship to Ulcer 53
- JANKE. The Relation of Gastrostomy to Inoperable Carcinoma of the Esophagus, with Description of New Method of Performing Gastrostomy 54
- GEORGE. The Post-operative Diagnosis of Duodenal Ulcer by Means of the Röntgen Ray 54
- BUTTING AND JONES. Intestinal Obstruction in the Rabbit 54
- DIX QUÉVAIN. Errors in Diagnosis in Appendicitis 55
- POL. Cases of Appendicitis, Cholecystitis, and Pericholecystitis, Showing the Clinical Picture of Ulcer of the Stomach or Duodenum 55
- DREYER. Hydro-Appendicitis 55
- SOLIER, S. Gastric Hypersensitivity of Appendicular Origin 55
- CANTILE. Grape Seeds in Pelvic Abscess 56
- CHEVREUL, D. Etiology and Significance of Pericolic Membrane 56
- WHITT, S. Cancer of the Colon 56
- AUTHERTY, C., AND BRAYFORD, E. The Action of X-Rays on Polyadenomas of the Intestine 57
- KIRKWOOD, R. The X-ray Diagnosis of Colitis Ulcerosa 57
- BEACH, W. M. A New Operation for Hæmorrhoids 57
- SMITH, R. R. A Description of the Enteropneustic Woman 57
- Liver, Pancreas and Spleen**
- J. OGATA. Radioscopic Examination of the Liver 518
- FISCHER, B. Primary Chorio-Epithelioma of the Liver 518
- CHIFFARD, A. A Large Absorbable Abscess of the Liver: Rapid Cure by Surgical Treatment Followed by Lactase 518
- KERR. Congenital Anomalies of the Gall-Bladder and the Hepatic Artery 520
- MITAKE, H. Statistical, Clinical, and Chemical Studies of the Etiology of Gall-Stones, with Special Reference to Japanese and German Conditions 519
- FROST, A. A New Technique for Establishing Permanent Pancreatic Fistula, Presentation of Intracapsular and Specimens 519
- SURGERY OF THE EXTREMITIES**
- Diseases of Bones, Joints, Muscles, Tendons. General Conditions Commonly Found in the Extremities.
- MIDY, W. M. The Osgood-Schlatter Disease 520
- MARIE, P. AND LERI, A. Paget's Bone Disease 520
- EL, L. W. Diseases of Joints and Bone Marrow 520
- BARRETT, A. S. B. The Pathology and Treatment of Hallux Valgus 521
- SCHWAB, A. The Etiology of the Bursitis 521
- FENWICK, W. S. The Conservative Treatment of Tuberculous Joints 521
- EISELICH, H. AND MARECH, M. Gangrene of the Extremities 521
- Fractures and Dislocations**
- BRIDE, H. Report of Eighteen Cases of Separation of the Lower Femoral Epiphyses at the Boston City Hospital 522
- JONES, R. AND SMITH, S. A. Rupture of the Crucial Ligaments of the Knee and Fractures of the Spine of the Tibia 521
- Surgery of the Bones, Joints, Etc.**
- GARR, G. E. Autoplastic Graft of Fibula and Ilia after Resection for Chondrosarcoma, with Observations on Bone Grafting 523
- KLOPFER, E. Free Transplantation of I into Bone Spaces 523
- KÖRTE. Successful Plastic Operation on the Elbow Joint by Means of Implantation of an Ivory Prothesis 524
- VON SAAR, G. F. AND SCHWABERGER, R. The Ulterior Longitudinal Incision for Operations in the Region of the Volar Surface of the Wrist Joint and of the Hollow of the Hand 524
- OSGOOD. The End Results of Excision of the Knee for Tuberculosis with and without the Use of Bone Plates 524
- SCHREIBERMAN, E. Free Transplantation of Peroneus 524
- PETRARCHIUS. A Case of Free Transplantation 525
- Orthopedics in General**
- YOUNG, J. K. Practical Progress in Orthopedic Surgery 525
- WARDENBURG, C. L. A Study of Congenital Dislocation of the Hip with Report of Six Cases 525
- CARR, W. P. An Operation for Flat Foot 525

SURGERY OF THE SPINAL COLUMN AND CORD

- KLEBERGER, S. Abbott Treatment of Rotary Lateral Curvature of the Spine and Details of the Technique 330
- MCGILVERAY, A. Ankylosis of the Spine 336
- ALDERICH, H. C. Bone Transplantation as Treatment of Pott's Disease 336
- CASTELL, E. Methods of Localization of Spinal Tumors with Reference to Their Medical and Surgical Treatment 336

SURGERY OF THE NERVOUS SYSTEM

- BIRALSKI, K. The Spastic Paralysis of Childhood and Its Treatment 337
- HARRIS. The End Results of Operative Treatment in Thirty Three Cases of Spastic Paralysis 337
- HORNIA, G. Experiences with the Stiefel Operation for Spastic Paralysis 338
- STRÖMEL, H. AND KIRSCHNER. Results of Nerve Suture 338
- KATZENTHIN, M. Nerve Plexus Grafts 338

DISEASES AND SURGERY OF THE SKIN FASCIA, APPENDAGES

- HENDRY. Report of Interesting Bacteriological Findings in Case of Pemphigus 339
- LOEB, L. AND SWICK, W. O. Histogenesis of Multiple Carcinoma of the Skin 339
- JOFFE, M. Free Fascial Transplantation. Experimental Investigations 339
- KOROVIN, P. The Free Transplantation of Fascia 339

MISCELLANEOUS

- Clinical Entities—Tumors, Ulcers, Abscesses, Etc.
- TYNNER, E. E. Factors in the Production and Growth of Tumor Metastases 339
- STEWART, J. C. The Malignancy of Giant-Celled Sarcoma 339
- FALTA, W. Diseases of Glands of Internal Secretion. 339
- Sera, Vaccines, and Ferments
- LEWIS, K., AND KOEHL, H. Experimental and Clinical Results Obtained with Rosenbach Tuberculin 33
- LEWIS, C. The Treatment of Cancer Patients by Vaccination 33
- RUDENKO, E. H. The Duration of Passive Immunity Against Tetanus Toxin 333
- Blood
- ORNDY, T. AND KELLERT, E. The Complement Content of the Blood in Malignant Disease 333
- FRIEDMAN, M. Prolonged Intravenous Infusions. 333
- Blood and Lymph Vessels
- GERTZEL, H. T. The Treatment of Varices with Spinal Incision 333
- Peterson
- F. JES, L. Cold Septa 333
- Surgical Therapeutics
- BURTHAM, H. Hexamethylenamine in Surgery 334
- Electrology
- JACOBSON. Conservative Surgery from Röntgenologic Standpoint 334

GYNECOLOGY

- Uterus
- OWAT, J. A Statistical Contribution on the Morphology of Uterine Carcinoma 335
- PERKINS. Treatment of Cancer in Mesothoracic Excretions 335
- VAUTIN. A Consideration of Cystic Tumors of the Uterus of Congenital Origin 336
- KALLIDON. The Etiology and Organo-Therapy of Uterine Hemorrhages 336
- KARER. An Obstetric Metrorrhagia 336
- LAWRENCE. Double Uterus and Vagina 336
- MURPHY, J. B. Pyroclastic Uterus Murphy's Method of Plugging the Uterus 337
- KURY. A New Procedure for the Relief of the Retroverted Uterus 337
- DAVIS, C. G. A Review of the Literature and Case Reports of Ruptured Uterus 337
- WICKBOY, J. The Uterus of Woman. Its Normal Function and Its Rupture Incident to Labor 338
- Adnexal and Peritoneal Conditions
- CORY, F. The Clinical Significance of Rupture of the Follicles in the Ovary 338
- VON FRANCKF. Cure of an Ovarian Cancer with Metastases by Operation and Subsequent X-Ray Treatment 339
- STERNBERG. Endothelioma of the Ovary with Report of Case of Mesothelioma of the Ovary 339
- SEIDENFELD, L. A Successful and Combined Method of Blochstein and X-Ray Treatment of Malignant Tumors. The Cure of Recurrent Ovarian Sarcoma with Metastases in the Spinal Column 339
- ORSHAN. Ovarian Hematoma and Ovarian Hemorrhage 339
- STETTER. A Method of Ventrodilation Combined with Certain Tubal Sterilization by Means of Extra-Abdominal Displacement 339
- BUTENBERG. New Operation for the Sterilization of the Woman with Future Possibility of Restoring the Function 340
- FUNK-BURTHAM AND PLATONOV. The Treatment of Sterility in Woman 340
- HEITLER, A. E. Pericolic Membranes of the Broad Ligament 340
- W. LUT. Rare Distribution of Ruptured Decidua Contents 34

External Genitalia

LEIGHTON The Transperitoneal Vesicular Route for the Cure of Certain Operative Vesico-Vaginal Fistulae

HERMANS, H. and MOON, S. Experiences with the Vaccine Treatment of Gonorrhoes in the Female

Miscellaneous

RUNGE X-Ray Treatment in Gynecology

FITZ X-Ray Treatment in Gynecology

WINTER X-Ray Therapy

HEIM and X-Ray Treatment

JELLINEK, O. O. Experimental Contribution to the Physiology of the Female Genitalia

NEWELL Cases Illustrating Certain Urinary Conditions in Women Associated with Frequent or Painful Micturition

B. HARTMANN A. The Atria of Post-Operative Infection of the Female Urinary Tract

MAYER, A. The Use of Serum in Obstetrics and Gynecology

MAYER, A. The Significance of Infantism in Obstetrics and Gynecology

OBSTETRICS

Pregnancy and Its Complications

MARKOW AND W. The Thyroid in Pregnancy

LACOMBE The Significance of the Ductless Glands for Metabolism During Pregnancy

HORSLEY J. S. Abdominal Pregnancy with Living Child

SCHWACHNER B. W. Cardiac Changes During Pregnancy

WALTER The Relations of Cardiac Disease to Pregnancy Labor and Puerperium

GROVE Pregnancy and Labor in Organic Heart Disease

VAN DER HORST P. C. T. Myoma Operation During Pregnancy

LOVE and VILCO Myoma Retroversion and Pregnancy

KORSAK The Diagnosis and Treatment of Eclampsia by Means of H. populi seed Extract

ROUSE, A. Observations on the Toxemia of Pregnancy and on Eugenia from the Obstetrical Standpoint

CARR Cesarean Section

HARTMANN, E., and LORCH, H. The Uterine Scar Following the Supravaginal Extra-peritoneal Cesarean Section

V. A. DEE HORTON The Chances for Subsequent Pregnancy after Classical Cesarean Section

BECKHART W. Cesarean section Performed for Vaginal Stenosis Following an Operation for Vesico-Vaginal Fistula

LARSON Supravaginal Cervical Cesarean Section

KUTNER, O. Cesarean Section of the Dead and the Dying Woman

VART J. The Technique of Cesarean Section

POWERS, N. The Results Obtained with Cesarean Section in Rome During the Last Twenty Five Years

LABOR and Its Complications

PAPPE, A. K. Some Aspects of Labor Mechanism in the Pelvic Basin

LEITCH The Treatment of Frontal Presentation

DE BOWEN, R. Acute Dilatation of the Stomach During Labor and Immediately Thereafter

RICH-FITZGERALD Uterine Dystocia, Secondary to Mitral Stenosis

Puerperium and Its Complications

FRIDM. Incidence of Malaria in the Puerperium

CHAPMAN K. H. Ovarian Abscess after Labor

Miscellaneous

ENGELHORN The Biological Diagnosis of Pregnancy

JELLINEK and LOEHL The Serio-Diagnosis of Pregnancy by the Dialytic Method

ANDERHALDEN E. The Diagnosis of Pregnancy by Means of the Dialytic and Optical Method

M. VILCO, A. Abderhalden's Pregnancy Reaction

SCHÄFER, P. Abderhalden's Pregnancy Reaction

PETER The Specificity of the Placenta-Splitting Ferments of Pregnancy Serum

DUGO The Fat and Cholesterol Content of the Blood in Pregnancy and the Puerperium under Normal and Pathological Conditions

FRANKEL Internal Secretion and Pregnancy

JORDAN, C. D. The Proof of the Presence of Spermatozoa in the Cervical Canal in Two Cases of Rape Eighteen Hours after the Perpetration of the Crime

WARMERSON Placental Bacteremia

BORRÉ The Location of the Placenta

COSTA, R. The Placenta of Giant Infant

ALICE Latin Uterine Sucking

ZUGMAYER A Young Human Embryo

WAGNER, G. A. Contributions to the Question as to the Origin of the Amniotic Fluid, Pathological, Anatomical, Experimental, and Clinical Examinations of the Functions of the Fetal Kidneys

RUBINOWITZ, L. L. Bleeding from the New Born and Its Prevention

MORSE, B. Simple Surgical Treatment of the Umbilical Stump

FRIDM. DEAL A New Procedure for the Enlargement of the Generally Contracted Pelvis

VON HOFFMANN, D. G. The Use of Pituitrin in Obstetrics

ROWLAND Pituitary Extract in Obstetrics

HEARLEY N. S. A Contribution to the Study of Pituitin

VORSTER and VLOTY Statistics of Childbirth

GENITO-URINARY SURGERY

- Kidney and Ureter**
- DE BERNIS-LAGUDE AND D. BELLARD. The Supra-renal Capsules in Cancer of the Kidney 558
- KNOTKOWSKI. On the Differential Diagnosis of Appendicitis and Nephrolithiasis 558
- GABRIEL. A Study of the Mechanical Obstruction to the Circulation of the Kidney Produced by Experimental Acute Toxic Nephropathy 558
- PAYNE AND MACNIDER. An Experimental Study of Unilateral Haematuria of the So Called Essential Type 559
- NEWMAN, D. Renal Vex and Hypertension as Causes of Symptomatic Renal Haematuria 559
- ISRAEL, W. Pyelotomy 559
- CONLEY, J. F. A Form of Experimental Nephritis 559
- POISSON, A. Indications for Operation in Chronic Nephritis 560
- MITCHELL, W. M. The Surgical Treatment of Chronic Nephritis, Haematuria and Dolores 560
- RIDGE. The Present Standpoint in regard to Nephritis and Nephritis Surgery 56
- MICHAEL. Chronic Nephritides from the Surgical Viewpoint 56
- BLUM, V. The Physiology of the Kidneys and the Functional Diagnosis of the Kidneys in Renal Surgery and Internal Medicine 56
- B. R. C. The Early Diagnosis of Renal Tuberculosis 56
- DORRIS. A Contribution to the Clinical Study of Strictures of the Ureter. Large Strictures 563
- Bladder, Urethra, and Penis**
- BARKER. A Case Illustrating the Efficacy of the High Frequency Current in the Treatment of Tumors of the Bladder 564
- STEVENS. Diagnosis and Treatment of Multiple Urethral Calculi. 14th Report of Unusual Cases 564
- JOSE. Congenital Stricture of the Prostatic Urethra in Bladder Hyperplasia, Urethral Dilatation and Multiple Abscesses of Both Kidneys 564
- Genital Organs**
- DELMAR. Traumatic Total Loss of Skin of the Male Sexual Organs 564
- CARLESS, A. A Case of Penico-Scrotal Dermoid Cyst 564
- B. KELLY. Castration and Operation for Varicocele and Hydrocele without Wounding the Scrotum 565
- TAIT. Recurrence of Hydrocele after Radical Treatment 565
- LOCHES, W. M. Ectopic Testis 565
- STEVENS, A. R. On the Value of Cauterization by the High Frequency Current in Certain Cases of Prostatic Obstruction 566
- CASSEL. Carcinoma of the Prostate 566
- WILLIAMS, R. J. Carcinoma of the Prostatic Gland 566
- WALLACE, C. Some Conditions Simulating Prostatic Hypertrophy 567
- HATCHER AND FULLER. The Post-Operative Complications of Prostatectomy 567
- GRIVINCO. Total Prostatectomy in the So-Called Prostatic Hypertrophy 567
- MOORE. Prostatectomy in the Aged 568
- Miscellaneous**
- FRYDER. Urolithiasis and Bilharzias 568
- FREUDEN, E. Experiences with Arthogen in Complications of Gonorrhea 568
- KOLTSCHER, G. Mid-Operative Diagnosis in Urologic Operations 569

SURGERY OF THE EYE AND EAR

- Eye**
- OSLERMAN. Severe Injuries to the Eyes and Face by So-Called Water Core and Zodiac Golf Balls 570
- STEPHENSON, S. Some Remarks upon the Diagnosis and Treatment of Lacrimal Affections 570
- STEPHENSON, S. Clinical Lecture on the Treatment of Glaucoma, with Particular Reference to the Newer Operations 570
- FRANKEL, H. Capillary Anaplasia of the Retina 570
- VANHOVEN, F. H. Parinaud's Conjunctivitis Mycotic Disease Due to Hilbert Undescribed Filamentous Organism 571
- HINSON, C. Sympathetic Nystagmus in Cryptophthalmos 57
- VAN. Cerebral Localization from the Standpoint of the Oculist 57
- Ear**
- GUTTENBERG, M. A Contribution to the Pathogenesis and Treatment of Pharyngeal Collections of Otic Origin 57

SURGERY OF THE NOSE, THROAT AND MOUTH

ALY. Nasal Septum and Its Relationship to the Syndrome of Sphenopalatine Ganglion Neuritis	57	MURPHY J. H. Use of Palate Mucous Membrane Flaps in Ankylosis of the J. w. D. (Clefts)	573
KLEINHAFT. Surgery of the Nasal Sinuses	57	Formations in the Cheek	
MITCHELL. Alcohol Injections into the Superior Laryngeal Nerve in Tuberculous Laryngitis	57	SKEILLER. Infiltration of the Lingual Nerve for Operations upon the Tongue and for Relief of Pain in Inoperable Carcinomas	573
MARLAND. Adrenal Ganglionitis, with the Presentation of an Liberal Conservatively Operated for It. Cure	573		

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNIQUE	
Operative Surgery and Technique	574
Aseptic and Antiseptic Surgery	574
Anesthetics	574
Surgical Instruments and Apparatus	574
SURGERY OF THE HEAD AND NECK	
Head	575
Neck	576
SURGERY OF THE CHEST	
Chest Wall and Breast	577
Trachea and Lungs	577
Heart and Vascular System	578
Pharynx and Esophagus	578
Miscellaneous	578
SURGERY OF THE ABDOMEN	
Abdominal V. N. and Peritoneum	578
Gastro-Intestinal Tract	579
Liver, Pancreas, and Spleen	58
Miscellaneous	58
SURGERY OF THE EXTREMITIES	
Diseases of Bones, Joints, Muscles, Tendons.	
General Conditions Commonly Found in the Extremities	581
Fractures and Dislocations	581
Surgery of the Bones, Joints, etc.	581
Orthopedics in General	583
SURGERY OF THE SPINAL COLUMN	
LOWE	585
SURGERY OF THE NERVOUS SYSTEM	
	585

DISEASES AND SURGERY OF THE SKIN, FURCA, APPENDAGES	
	585
MISCELLANEOUS	
Clinical Entities—Tumors, Ulcers, Abscesses, etc.	586
Sera, Vaccines, and Ferments	587
Blood	58
Blood and Lymph Vessels	588
Poisons	588
Surgical Therapeutics	588
Electrology	588
Military and Naval Surgery	588

GYNECOLOGY

Uterus	589
Adnexal and Peritestic Conditions	589
External Genitalia	589
Miscellaneous	589

OBSTETRICS

Pregnancy and Its Complications	589
Labor and Its Complications	589
Puerperium and Its Complications	59
Miscellaneous	589

GENITO-URINARY SURGERY

Kidney and Ureter	59
Bladder, Urethra, and Penis	593
Genital Organs.	594
Miscellaneous	594

SURGERY OF THE EYE AND EAR

Eye	595
Ear	595

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth	595
-------------------------	-----

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

- Abderhakken, E. 55
 Aldrich, H. C. 576
 Auch, 554
 Aubertin, C. 57
 Bankart, A. S. B. 5
 Barney, J. D. 564
 Baurerstein, A. 544
 Beach, W. M. 57
 Beauvais, E. 57
 Beckmann, W. 545
 Belfrage, K. 504
 Berszaki, K. 57
 Binsay, H. 5
 Blecher, 507
 Blum, A. 56
 Blumberg, 540
 Borden, 554
 Bryan, R. C. 561
 Büchtemann, L. I. 554
 Buchka, C. A. 565
 Burger, 407
 Bunting, S. 4
 Bortham, A. C. 534
 Canale, C. H. 56
 Carles, A. 504
 Carman, R. D. 5
 Carnot, P. 5
 Carr, H. H. 545
 Carr, W. P. 55
 Cartoloni, F. 5
 Casella, E. 576
 Chaffard, A. 58
 Cheever, D. 56
 Cohen, F. 525
 Corbett, J. F. 550
 Costa, R. 554
 Davis, C. G. 537
 Denver, J. B. 5
 De Beaudouin, 558
 De Bernis, Legarde 558
 De Borne, R. 550
 Derno, 553
 De Quervain, S. 5
 Derzhavsky, S. F. 505
 Demov, 563
 Ducoux, S. 5
 Dufour, P. 50
 Ecker, W. M. 565
 Ehrlich, H. 5
 Ely, L. W. 520
 Engelhorn, 555
 Epinger, H. 50
 E. van, J. H. 503
 Falia, V. 520
 Fejes, L. 524
 Felner, D. U. 543
 Fensch, W. 8
 Fischer, B. 58
 Franken, 513
 Frazier, C. H. 509
 Freeman, J. 551
 Frenkel, H. 570
 Freund, E. 560
 Freundthal, G. 556
 Friedman, L. 503
 Friedman, M. L. 533
 Froma, A. 59
 Fuller, H. G. 567
 Frank Bretonno 540
 Faith, 512
 Gask, G. E. 53
 Gattl, G. 500
 Gebick, 566
 Gelatis, H. T. 533
 George, A. W. 54
 Genselwitsch, 506
 Ghoreeb, 508
 Gourdon, 503
 Graham, J. M. 53
 Grimsel, 567
 Grind, O. 516
 Gueland, M. 57
 Guiser, 506
 Gundersen, W. 509
 Harner, F. R. 567
 Harris, H. E. 57
 Harter, F. 507
 Hartmann, K. 545
 Heinen, A. 557
 Heumann, 543
 Hendry, 520
 Herdler, A. E. 540
 Hermann, H. 54
 Horch, C. 57
 Hochmann, G. 518
 Horley, J. S. 545
 Howard, W. 559
 Jackson, C. 534
 Jacob, O. 505
 Jacob, F. 500
 J. way, H. H. 514
 Jansen, S. 8
 Jellingshaus, 55
 Joffe, M. 520
 Jones, S. 4
 Jones, R. 53
 Jordan, W. H. 564
 Josephson, C. D. 553
 Kaiser, F. F. L. 556
 Kallio, 526
 Katschewski, M. 528
 Kaufmann, 504
 Kehr, S. 0
 Keller, E. 533
 Kerschöck, R. 57
 Kirschner, 548
 Kliner, O. 540
 Klemberg, S. 526
 Klemsch, W. 573
 Klopfer, E. 53
 Kögel, H. 51
 Kolbecher, O. 569
 König, S. 4
 Kocner, P. 520
 Kowak, G. W. 547
 Krotzner, 558
 Krasak, 497
 Kuhn, J. I. 537
 Kyle, J. J. 573
 Landsberg, L. 545
 Lange, 548
 La rreer, C. S. 536
 Legoux, 54
 Leble, 550
 Levi, A. 520
 Lesser, A. 53
 Lewis, C. 53
 Loeb, H. 520
 Lorenz, H. 545
 Loew, 55
 Macander, W. D. 559
 Mamsfeld, G. 499
 Marack, M. 5
 Marie, P. 520
 Marton, 545
 Masland, H. C. 573
 Mayer, A. 544, 55
 Mayo, C. H. 50
 McGowan, A. 526
 McMichael, P. H. 407
 Mills, R. W. 5
 Minia, W. M. 520
 Mathoeffer, W. 57
 Miyake, H. 59
 Moore, H. A. 568
 Moon, S. 51
 Murard, J. 56
 Murphy, J. H. 465, 506, 537, 571
 Myrick, W. M. 560
 Noddy, B. 556
 Newman, D. 543, 550
 Novikoff, W. 499
 Obata, J. 535
 Obelmann, 570
 Okuma, H. L. 530, 55
 Orda, Y. T. 533
 Osgood, R. H. 524
 Paine, A. K. 550
 Park, R. 468
 Payne, R. L. 559
 Petraschewski, S. 5
 Petrá, G. 505
 Petri, 55
 Pfen, G. 508
 Pfister, 568
 Plakun, 515
 Plancher, S. 504
 Planchu, 540
 Podedwsky, N. 540
 Pkya, J. 55
 Porter, M. F. 50
 Poonson, A. 560
 Proping, R. 507
 Rieck-Finsky, 55
 Ritter, 503
 Ropke, W. 5
 Roth, T. M. 506
 Routh, A. 547
 Rowland, J. M. H. 556
 Ruediger, E. H. 533
 Ruge, E. 56
 Runge, L. 543
 Rumonoff, A. G. 507
 Santucci, A. 509
 Schäfer, P. 553
 Scheppmann, E. 503, 521
 Schenachoff, S. W. 545
 Schlosberger, A. 547
 Schmieden, V. 509
 Schor, H. 504
 Schütz, 407
 Schwanberger, R. 524
 Schwarz, A. 5
 Seeligmann, L. 530
 Silbert, P. G. 573
 Smith, R. R. 573
 Smith, S. A. 53
 Solari, G. 500
 Solari, S. 5
 Spode, H. 405
 Stelbharer, E. C. 512, 530
 Stephenson, S. 570
 Sertten, D. 550
 Stevens, A. R. 566
 Stenica, W. C. 564
 Stewart, J. C. 530
 Stocker, S. 507
 Strödel, H. 58
 Sweek, W. O. 520
 Tait, D. 565
 Thomson, A. 53
 Truesdale, S. 3
 Tuller, T. 505
 Tyzner, E. E. 530
 Val, D. T. 571
 Van der Hooven, 548
 Van der Hooven, P. C. T. 547
 Vast, J. 540
 Verhoef, P. H. 57
 Von der Vede, 547
 Von Traupel, 530
 Von Hoytema, D. O. 556
 Von Metzenbacher, T. 499
 Von Saar, G. F. 524
 Vortsch-Von Vloten, 557
 Wagner, G. A. 555
 Walker, C. 567
 Walther, 546
 Warnecke, 553
 Washburne, C. L. 55
 Wentzel, 543
 Werboff, J. 538
 White, F. W. 5
 Whit, S. 56
 Williams, R. J. 566
 Wiser, 545
 Wolf, A. 54
 Young, J. H. 55
 Zangmeister, 554

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Stuart McGuire Lewis S. McHenry Welly M. Jay James E. Moore Fred T. Murphy John B. Murphy
 James M. Neff Edward H. Nichols A. J. Ochsmier Roswell Park Charles H. Pack J. R. Pennington
 S. C. Phinney Charles A. Powers Joseph Ranzoboff H. M. Richter Ernest Rinford H. A. Reyster
 W. E. Schroeder Charles L. Scudder M. O. Seabg E. J. Seann John E. Summers James L. Thompson
 Herman Tshelake George Tully Vaughan John R. W. Van. CANADA E. A. Archibald J. E. Armstrong
 H. A. Bruce Irving J. Cameron Jasper Halpeany J. Alex. Hutchison Francis J. Sheppard F. N. Starr
 T. D. Walker ENGLAND H. Branton Angus Arthur H. Barker W. Watson Cheyne W. Sampson Headley
 W. Arbuthnot Lane G. H. Makins Robert Miles B. G. A. Meynihan Remston Parker Harold J. Sells
 Gordon Taylor

GYNECOLOGY AND OBSTETRICS

AMERICA Frank T. Andrews Brooke M. Ampech W. E. Ashton J. M. Bakdy Channing W. Barrett
 Herman J. Beldt J. Wesley Boyde LeRay Brown Henry T. Byford John G. Clark Edwin B. Cough
 Thomas S. Cullen Edward P. D. via Joseph B. D. Lee Robert L. Dickinson W. A. Newman Dawland E. C.
 Dudley Hugo Ehrenfest C. S. Elder Palmer Fladley Henry D. Fry George Gellhorn J. Riddle Goff
 Seth C. Gordon Barton C. Hirt Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krug
 L. J. Ladinski H. F. Lewis Frank W. Lynch Walter P. Mantos James W. Markoe E. E. Montgomery
 Henry P. Newman George H. Noble Charles E. Paddeck Charles B. Pearson Reuben Peterson John O.
 Polak Wm. M. Polk Edward Reynolds Emil Ries John A. Sampson F. F. Simpson Richard R. Smith
 William B. Stone H. M. Stowe William E. Stoddiford Frederick J. Tansig Howard C. Taylor Harry
 N. Vaseberg W. F. B. Wakefield Georg O. Ward, Jr. William H. Waters J. Whitridge Williams
 CANADA W. W. Chipman William Gardner F. W. Marlow E. C. McIlwraith V. P. Watson A. H.
 Wright ENGLAND Russell Andrews Thomas W. Eden W. E. Fothergill T. R. Heffler Thomas Wilson
 SCOTLAND: William Fordyce J. M. Munro Kerr IRELAND Henry Jellott Hastings Tweedy
 AUSTRALIA Ralph Westral SOUTH AFRICA H. Temple Murray INDIA Kedarnath Das.

GENITO-URINARY SURGERY

AMERICA Wm. L. Barr Wm. T. Bedford Joseph L. Boehm L. W. Brennerman Hugh Cabot John
 R. Calk Charles H. Chetwood John H. Cunningham J. S. Eisenstadt Ramon Gunkars Francis E.
 Hagner Robert Herbert Edward L. Kayes, J. Gusta Kallischer F. Krausel Brantford Lewis O. Frank
 Lydston Greenville MacGowan L. E. Schmitt J. Bentley Squier B. A. Thomas Wm. N. Wickard Hugh
 H. Young Joseph Zeisler ENGLAND T. W. Thompson Walker John G. Purdee. INDIA Mirjandral Mitra.

ORTHOPEDIC SURGERY

AMERICA E. C. Abbott Nathaniel Allscom W. B. Barr Owsyn O. Davis Albert G. Frelberg Arthur
 J. Gillette Virgil P. Olney Joel E. Goldthwait G. W. Irving Robert W. Lovett George R. Packard John
 L. Porter John Ritten Edwin W. Ryerson Harry M. Sherman D. vid Silver H. L. Taylor H. Augustine
 Wilson James K. Young. CANADA A. Mackenzie Forbes Herbert P. H. Galloway Clarence L. Starr
 ENGLAND Robert Jones A. H. Tabbly George A. Wright

RADIOLOGY

Eugene W. Caldwell Russell D. Carman L. Gregory Cole Preston M. Hickey Henry Hulet George
 C. Johnston Sidney Lange George K. Pfahler Halls E. Potter CANADA Samuel Cummings Alexander
 Howard.

SURGERY OF THE EYE

AMERICA: C. H. Beard E. V. L. Brown H. D. Burns Vard H. Hagen Edward Jackson W. P. Marple
 William Campbell Peasey Brown Peasey Robert L. Ransdolph John E. Weeks Cassius D. Wescott William
 H. Wicker Casey A. Wood Hiram Woods. ENGLAND J. B. Lawford W. T. Holmes Spicer SCOTLAND
 George A. Berry A. Mathind Ramsay

CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EAR

AMERICA Ewing W. Day Max A. Goldstein J. F. McKernon Norval H. Pierce S. MacCuen Smith.
CANADA: H. S. Birkett. ENGLAND A. H. Cheate SCOTLAND: A. Logan Turner IRELAND:
Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA Joseph C. Beck T. Melville Hardie Thomas J. Harris Chrisbam R. Holmes E. Fletcher
Legale Chevalier Jackson John N. MacKinnon G. Hudson Maknen George Paul Marquis John Edwin
Rhodes AUSTRALIA A. J. Brady A. L. Kesney INDIA: F. O'Kinealy

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS — General Surgery
CAREY CULBERTSON and CHARLES B. REED
— Gynecology and Obstetrics
LOUIS E. SCHMIDT — Genito-Urinary Surgery
JOHN L. PORTER — Orthopedic Surgery

HOLLIS E. POTTER — Radiology
WILLIAM H. WILDER — Surgery of the Eye
NORVAL H. PIERCE — Surgery of the Ear
T. MELVILLE HARDIE — Surgery of the Nose
and Throat

GENERAL SURGERY

AMERICA Carroll W. Allen E. K. Armstrong Donald C. Balfour H. R. Basinger George E. Bellby
B. M. Barabehn Barney Brooks Walter H. Buhig J. P. Carnett Otto Castle Phillips M. Chase
James F. Churchill Isadore Cohn Karl Connell Lewis B. Crawford V. C. David Nathan S. Davis III
D. L. Dwyer L. G. Dwan Frederick G. Dyas A. B. Eustace Ellis Fischel Herman R. Gessner Donald
C. Gordon Tocr Wagner Harmer Christian D. Hesch James P. Henderson Charles Gordon Heyd
Harold P. Kahn Lucius H. Landry Felix A. Larue Haksey B. Loder Urban Maes Wm. Carpenter
MacCarty B. F. McGrath R. W. McNeely Alfred H. Neehren Matthew W. Pickard Maurice C. Pincoffs
Eugene H. Pool H. A. Potts Martin B. Rehling E. C. Riebel Floyd Riley M. J. Seibert J. H. Skiles
Harry G. Sloan John Smythe Carl R. Stachurs Lester H. Taholaks Henry J. Van den Berg W. M. Wilkinson
Rory M. Williams Erwin P. Zaisler ENGLAND: James E. Adams Percival Cole Arthur Edwards
I. H. Houghton Robert E. Kelly William G. Hatt B. C. Maybury Eric P. Goid T. B. Legg Felix Rood
R. G. Schiesinger B. Bangster Stronachs Harold Upcott O. G. Williams. SCOTLAND: John Fraser
A. P. Mitchell Henry Wade D. P. D. White

GYNECOLOGY AND OBSTETRICS

AMERICA S. W. Bendler A. C. Beck Daniel L. Borden D. H. Boyd Anna M. Brownworth E. A.
Ballard Eugene Cary W. H. Cary Sidney A. Chaffert Edward L. Coonell A. H. Curtis A. Henry Dunn
F. C. Kesselerwegge Lillian K. P. Farrar W. B. Fehring Howard G. Gerwood Maurice J. Geighl Luba R.
Goldsmith C. G. Graves N. Sprout Henney T. Lescraft Hein D. S. Hittis John C. Hirst F. C. Irving
L. A. Jelenk Herman L. Kaife George W. Kessnak H. W. Kestmayer Julius Lackner Herman Lober
Rafael Lorral Donald Macomber Harry R. Matthews L. P. Milligan Arthur A. Morse Ross McPherson
George W. Osterbridge Albert E. Pagan George W. Partridge Wm. D. Phillips Reginald M. Rawls
L. W. Sauer Heliodor Schiller A. H. Schmidt Henry Schnitz Edward Schumann Emil Schwarz
J. M. Skarzenski Camille J. Stamm Arnold Stumdorf Georg de Tarnowsky S. B. Tyron Marie L. White
P. F. Williams R. E. Wolms. CANADA: James R. Goodall H. M. Little. ENGLAND: Harold Chapple
Harold Clifford F. H. Lacey W. Fletcher Shaw Clifford White. SCOTLAND: H. Leth Murray
J. H. Whitt.

ABSTRACT EDITORIAL STAFF—Continued

GENITO-URINARY SURGERY

AMERICA: Charles E. Barnett J D Barney E. S. Barringer Horace Binney Theodora Dinsworth
H. A. Fowler F. E. Gardner Louis Green Thomas C. Holloway H. G. Haxner L. E. Kell H. A. Krum
Herman L. Kretschmer Martin Kretschmer Victor D. Leppmann William E. Lower Harvey A. Moore
Stirling W. Mooreland A. Nelson C. O'Crowley R. F. O'Neill H. D. Orr G. M. Petrick C. D. Pickard
H. J. Polkey Jaroslav Rada S. Wm. Schapiro Georg G. Smith A. C. Stokes L. L. Ten Broeck H. W. E.
Walther Carl Lewis Wheeler. ENGLAND: J. Swift Joly Eidsay G. Macdonald.

ORTHOPEDIC SURGERY

AMERICA: Charles A. Andrews A. C. Bachmeyer George I. Baumann George K. Bennett Howard
E. Bicker Lloyd T. Brown C. Hernan Buchels C. C. Chatterton W. A. Clark Robert B. Coffield Alex E.
Colvin Arthur J. Davidson Frank D. Dickson Albert Ehrhardt William G. Erving F. J. Gosselin M. S.
Henderson Ph. Hoffman C. M. Jacobs S. F. Jones F. C. Kildner F. W. Lamb Prescott LeBruton
Paul B. Magnus George J. McChesney H. W. Orr Archer O'Reilly H. A. Pingree W. W. Pletcher
Robert O. Ritter J. W. Sever John J. Shaw Charles A. Shan Paul P. Sweet H. R. Thomas James O.
Wallace James T. Watkins C. E. Wells DeForest P. Willard H. W. Whitex. CANADA: D. Gordon Evans.
ENGLAND: Howard Beck E. Rock Corling N. Ashton Dwan E. Lansing Evans W. H. Hey John
Mortley T. P. McMurray Charles Roberts G. D. Telford.

RADIOLOGY

David R. Bowen John Burke James T. Case William Evans Amadee Granger O. W. Grier Adolph
Hartung Arthur Hedding Leopold Jachs Albert Miller Ed. H. Skutner David C. Strauss Frances E.
Turley J. D. Zillick

SURGERY OF THE EYE

AMERICA: E. W. Alexander N. M. Brinkerhoff C. O. Darling T. J. Dineley J. E. Ellis E. E. Fowler
Lewis J. Goldbach Harry S. Gracie J. Milton Grieco E. F. Krug Francis Leas Walter W. Watson
ENGLAND: F. J. Cunningham M. L. Hepburn Foster Moore. SCOTLAND: John Pearson Arthur Hy H.
Shochak Ramsey H. Traquair James A. Wilson.

SURGERY OF THE EAR

AMERICA: H. Beattie Brown J. R. Fletcher E. E. Fowler A. Spencer Kaufman Robert L. Loughres
W. H. Theobald T. C. Wistara. CANADA: H. W. Jamieson. ENGLAND: G. J. Jenkins. SCOTLAND:
J. S. Fraser IRELAND: T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA: George M. Coates Carl Flecher R. Clyde Lynch Ellen J. Patterson. AUSTRALIA: V.
Munro. INDIA: John T. Murphy

COLLABORATING EDITORIAL STAFF
FOR FRANCE AND GERMANY

Journal de Chirurgie. B. Cunéo J. Dumont A. Gossat P. Locene Ch. Lemaire R. Proust
Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete A. Bier A. Frh. von Eiselsberg
C. Franz O. Hildebrand A. Kohler E. Küster F. de Quervain V. Schmieden
Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete: O. Beutner
A. Döderlein Ph. Jung B. Krönig C. Menge O. Pankow E. Runge E. Wertheim
W. Zangemeister

INTERNATIONAL ABSTRACT OF SURGERY

NOVEMBER, 1913

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

ANESTHETICS

Kruskal. Intratracheal Ether Anesthesia. *Surg. Gynec. & Obst.* 9, 3, xvi, 7.
By Surg. Gynec. & Obst.

Kruskal reports 84 cases of intratracheal ether anesthesia with the Elsberg apparatus. While his experience in thoracic surgery is limited only to cases of empyema and lung abscess, he finds this method of decided advantage in operations where the anesthetist is in the way or the position of the patient makes the administration of anesthetic awkward. In cases of obstruction to the upper air passages this method eliminates all the dangers of the ordinary methods of anesthetization.

In the good and feeble the relief of respiratory effort removes the strain on the cardiovascular system and thereby minimizes post-operative shock. The return current of air prevents the inhalation of blood and mucus and eliminates a decided factor in the production of aspiration pneumonia.

The technique of administration is that advocated by Elsberg. He finds that the introduction of the catheter has been extremely simple with the use of the Jackson laryngoscope. The only difficulty experienced with the method is the fact that in a number of his early cases the anesthesia had been insufficient and it was found impossible to cause complete abdominal relaxation to permit thorough exploration.

McMechan. Oxygen and Anesthesia. *Internat. J. Surg.* 9, 4, xvi, 505. By Surg. Gynec. & Obst.

McMechan quotes the experiments of Gatch in over-ventilating the lungs post-operatively with oxygen in the presence of carbon dioxide retention, and after an exhaustive personal experience with the method of the close drop-ether anesthesia, states that not only is it successful in eliminating

the remnants of the anesthetic from the alveoli of the lungs, the circulation and the cellular tissues, but also that after an interval of such rebreathing, depending in length upon the time of previous etherization, patients awaken in rational possession of their faculties, have no nausea or vomiting, unless the necessary manipulative trauma of the operative procedure has evoked such reflexes, and seldom encounter such dreaded post-anesthetic sequelae as acetemuria, uremia, acute dilatation of the stomach, pseudo-obstruction of the bowels or pneumonia.

Bunte. Experiences with Anæstheticum Novum (Erfahrungen mit Anæstheticum novum). *Deutsche Zahnärztl. Wochenschr.* 9, 3, xvi, 507.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Anæstheticum novum consists, pro cem of novocain 0.004, suprarenin, 0.05, extract. cort. Hamamel, N tr. chlorat. 0.0004 sterilized in the utroclave. It is prepared in Dr. Gläzner's apothecary shop in Kassel. In 1000 cases of dental operations in which this anesthetic was used the author observed complete anesthesia without unpleasant accessory effects, such as swelling of the soft parts, after-pains or late hemorrhages. The time interval was one-half minute for the upper jaw one to ten minutes for the lower jaw and three to fifteen minutes to produce anesthesia due to loss of nerve conductivity with injections of one-half to one cem. Hgsm.

Schütz. Magnesium Narcosis (Zur Kenntnis der Magnesiumnarkose). *Wien. Klin. Wochenschr.* 19, 2, xvi, 745.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In animals subcutaneous injections of a magnesium salt produce narcosis which can be stopped by injections of calcium compounds. Kocher utilized these properties in the therapy of tetanus. Schütz's

investigations have led him to the following preliminary results. After a single injection of non-lethal, sleep-producing dose of $MgSO_4$ & $MgCl_2$, magnesium could be demonstrated in the blood river and in traces also in the brain. Repeated injections lead to deposit in the brain which may be inhibited by calcium chloride. These relations remained uncertain in muscle. Sodium valat occasionally increases the sensitiveness to

magnesium. Experimentally the inhibitory action of calcium could be prevented by sodium valate. The experiments indicate that either small changes in the ionic cell content are enough for narrows or the magnesium invades the cells only secondarily and is primary at the cell membrane. As yet nothing can be said as to the point of attack of magnesium. Some consider it central others assume act on stimuli to curate. WILKINSON.

SURGERY OF THE HEAD AND NECK

HEAD

Spade, H. Successful Treatment of Cancer of the Face by Simple Puncture with Ferrous Oxide (*Erfolgreiche Behandlung von Gesichtskrebs durch einfache Einstichung von Eisenoxyd*). *Zsch. f. Kreislaufs.* 9 3, 22, 30. By Zentralbl. f. d. ges. Chir. 1 Gernsbach.

The author has succeeded in healing over ex-cochleated carcinomas of the face quite rapidly by injecting ferrous oxide into the base of the ulcer. The efficacy of this resectional treatment was enhanced in one case of extensive carcinoma by the subcutaneous administration of a vi and arsenic. Spade expresses the hope that he may be able to heal inoperable or recurring carcinomas of the internal organs by the same principle though with some what altered technique as regards its application.

GERHARD

Murphy J. B. Ankylosis of the Jaw—I Terposition of Flaps from Mouth. *Surgical Clinics of John B. Murphy* 9 3, 4, N. 3. By Surg. Gynec. & Obst.

The patient, male of 3 in July 1909 had an abscess about molar tooth in the right upper jaw. It was not treated for 3 weeks at the end of that time the abscess was opened from within the mouth and cauterized. A week later an external incision was made. Only a little pus was evacuated. Shortly after the operation ankylosis began to develop and steadily grew on. A year after the onset an operation was performed to relieve ankylosis, but was unsuccessful.

There are three types of ankylosis in the jaw: fibrous ankylosis, bony ankylosis and ankylosis arising from osteitis outside the joint. The case described above proved to be of the extreme articular fibrous type. A solid band extended to the outer side from the upper to the lower jaw and closed back to the ramus. The anesthetic was given through the nose, and the mouth was held open with a gag. The adhesions are separated very carefully with scalpel and scissors, the finger being used as guide. After much work, the mouth was opened wide. The tongue was drawn then to the opposite side and two flaps were interposed one from the floor of the mouth and the other from hard palate. Both

were tongue-shaped, the lower 3 inches long and 1/2 inch wide, the upper 2 inches long and 1 inch wide. The base of the upper flap was directed toward the alveolar process, and that of the lower toward the tongue. Both were swung out to cover the raw surface left by dividing the adhesions. The tips of the flaps were sutured to the inner margin of the gum and the cheek. All suturing was done with fine catgut, and no tension was exerted on the flaps. L. J. MITCHELL.

Park, R. Conclusion Drawn from Quarter Century's Work in Brain Surgery. *N. Y. St. J. Med.* 9 3, 22, 303. By Surg. Gynec. & Obst.

The paper opens with a short history of the advance made in brain surgery. The author then takes up the various brain lesions and discusses the question as to whether there has been any advance in the treatment in the last twenty-five years. He states that the expectations have been much greater than the realizations. In the treatment of injuries of the cranium the results are gratifying. As far as the actual structure of the brain permits, the resources to-day leave little to be desired. He says further—I the treatment of hemorrhage spontaneous or traumatic, great advance has been made in the treatment of hydrocephalus not so much here the condition itself is almost inoperable. In the matter of technique great advance has been made. We now have very nearly perfect contrivances for any manipulation which the construction of the parts may justify. Never until recently for instance have instruments been devised by which it appears impossible to injure the brain while perforating the skull. These, Hudson, of Atlanta, has finally succeeded in producing and with them, as the forceps also of his device, the matter of raising osteoplastic bone flaps of almost any size or shape has been greatly simplified. With such instruments as these it is therefore comparatively simple matter to carry out operations intended for decompression, which shall, I am probably prove most effective in the relief of symptoms of brain pressure produced by lesions not permitting radical attack.

The surgery of the hypophysis, not one or two other of the recent methods of attack for particular indications are yet so recent as not to come within the scope of this paper. They give every indica-

tion of brilliancy and promise but are still on trial.

The author comes to the following conclusions:
The surgery of the tumor of the general is still disappointment so far as radical measures are concerned. In all but a very small percentage of cases decompression operation will better serve the purpose. With regard to the focus precisely the same statement cannot be made because here unless the focus is found practically nothing is accomplished but the localization of this focus is but slightly more accurate than formerly. In the matter of the leprosy and the psoriasis the operative measures are simple and the technique sufficient as in one respect the prevention of fresh diseases. For more accurate notions regarding etiology are needed, and better discrimination between surgical and non-surgical cases.

Facial surgery has then made great advance but the hopes based on the use of the X-ray have not yet been fully realized in 1913. LEONARD L. COHEN.

Nowikoff W. N. A New Way of Attacking the Hypophysis (Ein neuer Weg für Eingriffe an der Hypophyse). *Zentralbl. f. Chir.* 9, 3, 1000.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Nowikoff has modified the Linsenoff method of temporary resection of the superior maxilla and the nose and worked out a method which renders broad access to the hypophysis at the under surface of the pons and the elongated medulla. The procedure is as follows: A incision is made over the zygomatic arch along the lower border of the orbit over the root of the nose, and down along the opposite border of the nose round the nostril to the middle. The upper lip is divided in the middle. The perosteum is separated from the lower orbital wall to the inferior orbital fissure. The bone is separated from the tear sac and the zygomatic bone with its frontal processes is then exposed. The zygomatic arch and the frontal processes are divided. The bony framework of the root of the nose is cut through after the introduction of Gelfand. A longitudinal incision is made in the mucous membrane of the hard palate of the opposite side and the bone and the apertures pyriformis are divided with a chisel.

The nasal septum is divided from the opening at the root of the nose. The maxillary bone and the nose can then be liberated from their bed and thus allow broad access to the base of the brain. The sphenoidal sinus comes clearly in view and its anterior wall is chiseled away. By means of a cochotome the other wall of the sphenoidal sinus is then removed in toto. This exposes the upper wall of the sphenoidal sinus which at the same time is the floor of the sella turcica. This is carefully opened for a short distance. When the operator has made sure that the cavernous sinus is not immediately above the opening is enlarged sufficiently to expose the hypophysis. Without much difficulty the body of the sphenoid bone and of the basal part

of the occipital bone can be removed to expose the lower half of the pons and the elongated medulla. After the superior maxilla and the nose have been replaced the base of the brain can be drained to the outside. The author has performed this operation so far only on the cadaver. WOODROW.

NECK

Von Mutschelbacher T. The Treatment of Scrofulous Lymphatic Glands of the Neck (Wie behandelt man skrofulöse Halslymphdrüsen)? *Ber. Klin. w. Chir.* 9, 3, 1007.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author's experience includes about 1500 cases of lymphomatous colli which he observed at the Reclus clinic in Budapest. Of these 1100 per cent were operated upon. The others were treated conservatively. There are three types of this disease, each of which calls for a particular method of treatment. Type I is characterized by short hard, non-calcified lymph glands. Of this kind there are 74.5 per cent of the cases. Nutritious diet and iron and arsenic preparations, climatic treatment in the seashore or in the mountains, sunlight and Röntgen-ray treatment give quick and good results. If the glands soften they should be punctured. External applications (iodine and mercury ointments) and poultices should not be used. Type II is characterized by closed and suppurating glands. Of this form there are 7.5 per cent of the cases of this disease. Since after free incision, healing takes place very slowly and leads to deforming scars, treatment ought to be restricted to puncture followed by injections (the author recommends iodine-form glycerine). Only in those cases that are complicated by other manifestations of tuberculosis (laryngeal or bone tuberculosis) should an open incision be made. In Type III the glands are suppurated and form fistulous tracts through the skin. They should not be excised, curetted, nor cauterized. Sunlight and general treatment give very good results. The application of green soap is recommended.

In all cases of glandular involvement of the neck Waldeyer's lymphatic ring in the pharynx should receive attention and appropriate treatment.

FORNIA.

Manfeld G. The Effect of Thyroid Gland upon Blood Formation; a Contribution to the Physiology of the Thyroid Gland. Number 2 (Hirnbildung und Schilddrüse. Beiträge zur Physiologie der Schilddrüse. Abt. 2, 2). *Arch. f. d. ges. Physiol.* 9, 3, 1013.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Manfeld attempted to discover by means of experiments on rabbits whether the effect of lack of oxygen on the formation of blood is to be attributed to an increase in the activity of the thyroid gland. In normal animals he noted the well known effect of high altitude upon the number of erythrocytes, but in animals whose thyroid glands had been

removed the increase did not take place. The regeneration of the blood after phenylhydrazin anemia was much less proportionally in animals whose thyroid glands had been removed than in normal animals, this difference being most marked at high altitudes (5 per cent in abnormal animals as compared with 64 per cent in normal animals).

The hemoglobin of the blood increased at high altitude in normal animals but decreased in animals without a thyroid. The regeneration of the hemoglobin he found as not parallel to that of the erythrocytes but it took place at high altitude even in animals without thyroid (carbot serum from animals without thyroid as as effective as that from animals that were normal. The use of this serum caused decrease rather than an increase in the red blood cells in animals without thyroid. Thyroid extract several days after Mansfield had ceased administering it caused marked increase in the red blood cells. From two metabolism experiments carried on after the discontinuance of the administration of the thyroid extract and in which there was noted increase in the red blood cells but no increase in the nitrogen excretion, the author concludes that thyroid material does not directly influence either the nitrogen output or the nitrogen retention. In other metabolism experiments showed that the decomposition of bromine caused by the lack of sufficient oxygen (which the author attributed to increased thyroid activity) did not recur when the supply of oxygen was further limited. Mansfield concludes from this that when the deficit of oxygen is slight it causes stimulation of the thyroid activity but when it is more pronounced and of longer duration it inhibits the thyroid activity. This conclusion agrees with those of Reich and Blauel.

Mansfield's conclusions are as follow: High altitude anemia and Carbot serum cause new formation of red blood cells (as does the administration of thyroid). This depends upon the stimulation of the thyroid and an increased secretion. New formation of erythrocytes which depends upon the stimulation of the bone marrow by the thyroid secretion, therefore takes place only when the thyroid is active. The albumin that is retained after the discontinuance of the administration of thyroid is used in the formation of the new red cells. An increase in erythrocytes does not take place during the administration of thyroid or during a period of hypersecretion since at this time there is an albumin deficit. All of Mansfield's findings need clinical confirmation. KROEMER

Solaro G. Osteosarcoma of the Thyroid Gland (Osteosarcome de la glande thyroide). *Clin. chir.* 9:3, 1914. By Journal de Chirurgie.

This rare observation is especially interesting from the point of view of pathological anatomy.

As in most of the cases so far reported, the osteosarcoma described by Solaro developed in a gland that was already diseased (goiter). It affected the

left lobe and it was possible to readily cauterize it like a goiter. An infiltration, however, occurred with great rapidity.

Histologically this growth was an osteosarcoma similar to those that occur in bones. The sarcomatous tissue is the youngest and most active part of the tumor and by successive modifications it changes to osteoid, bony and cartilaginous tissue. In the recurring tumor there were found sarcoma cells almost exclusively lith but little bone and no cartilage.

The osteosarcoma may have had its origin in an osteogenic rest in the thyroid derived from the bronchial apparatus, but the author prefers to consider it a direct metaplasia of the connective tissue.

FREDERICK FETTER.

Gatti, G. Echinococcus Cyst of the Thyroid (Kyste à échinocoques de la thyroïde). *Chir. Arch.* 9:3, 1914. By Journal de Chirurgie.

A hydatid cyst of the right lobe of the thyroid of months duration as observed in child of five. An attempt was made to cauterize the cyst proper and its capsule, but it ruptured and thyroid tissue had to be removed.

The author makes critical study of the literature of the subject and as treatment, advises in order of preference: enucleation, partial resection of the thyroid or marsupialization.

Attention is called to the fact that Gatti uses the term "enucleation" in a sense different from that in which it has been used since the work of DeBakey. Gatti speaks of enucleating the extraparasitic sac formed by all of the parasite. That, as in hydatid cyst of the liver would be radically impossible. One may agree with Gatti, however, if the latter proposes enucleating the hydatid cyst proper, which in the case cited could be a better result accomplished as there were no adhesions between the cyst and proper and the thyroid capsule surrounding it.

FREDERICK FETTER.

Jamin F. The Combination of Thyreosis and Nephrosis (Über die Kombination von Thyreose mit Nephrose). *Deutsch. Zeitsch. f. Nervenheilk.* 19:3, 1914-1915 (Festschr. von Siering). By Zentralbl. f. d. ges. Chir. L. Gernsheim.

The author describes cases in which more or less definite picture of thyreosis as accompanied by definite disturbances in the kidney. That this is not merely coincidence was proven by the effect that the ooc exerted upon the other. The mildest cases were represented by the so-called orthostatic albuminuria, especially that occurring in young girls. Although this condition is frequently designated as chlorosis, the accompanying rapid enlargement of the thyroid gland and the blood picture proves that it belongs to the group of thyroid disturbances. Besides the thyroid, also other organs of internal secretion may be involved and may produce symptoms difficult to interpret. In many cases disturbances of development

are soon noted. In fully developed hyperthyroidism, disturbances in the kidney belong to the clinical picture. These cannot be attributed to the cardiac injury alone; they must have some specific cause. They may come and go with the change in the severity of the disease. In one case that is described in detail the thyrotoxic patient had a very unstable nervous system and a prolonged increase in the blood pressure. He suffered also continued disturbance of the kidneys that was manifested by albuminuria and polyuria. Two other cases showed similar findings. Common to both was the thyroids together with the symptoms of status thyrolymphaticus, hypertrophy of the left ventricle, prolonged increase in the blood pressure and kidney disturbance. The female sex of mature age seems especially predisposed. The increased blood pressure may be borne for years.

The pathogenesis is not definitely known. It is highly probable that disturbance of internal secretion is the primary factor. Accidental injury to the kidneys by infection or toxic agents cannot, of course, be absolutely excluded, but the kidney disturbance will be much more severe if the sympathetic and autonomic nervous system has become hypersensitive by reason of the thyroids. The high blood pressure in these cases appears to be due to an increased peripheral resistance which is of functional rather than a morphological character. Atherosclerosis is not a factor; the vascular system is still capable of adapting itself and it is for this reason that the increased blood pressure can be well borne. As to whether a internal secretion of the kidney enters into consideration cannot be stated at this time; such secretion should manifest itself by stimulating action upon the suprarenals. If the observation that thyrotoxic symptoms may occur in old people with contracted kidneys and hypertension, parallel is found to the cases described.

The therapy demands much care; these patients do not stand operation as well as others. Ligation of the vessels may be attempted first. Digitals are not of use.

LESLIE CRILE.

Mayo, C. H. *Surgery of the Thyroid; Observations on Five Thousand Operations.* J. A. M. A. 1913, 16, 131. By Surg., Gynec. & Obst.

Spontaneous, endemic and epidemic goiters are found in all parts of the world, among all people and most animals. As yet we have no knowledge of specific infecting agent which can be regarded as the causative factor in the production of goiter. The work of the Goiter Commissions and the reports of those observers who have made study of the etiology of goiter make it quite apparent that whatever the agent, it seems to be more readily conveyed by water than by any other medium, although water is probably not the sole carrier. The more recent progress in the non-surgical treatment of goiter seems to indicate the use of thyroid, iodine and iodine as intestinal antiseptics. Thyroid gland has an uncertain potency yet apparently produces favorable

results in the early treatment of simple goiters. In exophthalmic goiter temporary improvement may be obtained by the use of the X-ray. The cytolytic serums for specific action in the thyroid have not borne out in results the expectations of the medical profession. The thymus gland and the thyroid are undoubtedly intimately associated in the growth and development of early life. The thyroid may be of great use in advanced middle age, compressing the trachea at, or just above the bifurcation. Such complications are more common and more grave in goiters of the hyperplastic type. Large right-sided goiters frequently produce paresis of the left recurrent nerve, and it is therefore advisable to make a laryngoscopic examination before doing a thyroidectomy. Extensive exposure of the nerve is advisable only in an operator's early experience, in operating on nodular thyroids which extend beneath the trachea and have displaced the nerve. The scar tissue which results from the traumatism of free exposure may lead to secondary paresis. In performing thyroidectomy the best exposure to be obtained is through a transverse incision low in the neck, the skin and platysma turned together both ways from the incision. Should further exposure be necessary the sternohyoid can be sectioned high in the exposed area. In simple goiter it is best to extirpate a greatly enlarged lobe. If both lobes are symmetrically enlarged division of the isthmus with double resection of glands is indicated for the best cosmetic results. Midline, encapsulated adenomas should be enucleated with division of the isthmus. Lateral encapsulated adenomas may be enucleated or the whole lobe extirpated. If symptoms of hyperthyroidism are present extirpation is indicated. Excluding malignancy the mortality in operating on goiters is very low (3) and varies but little in the so-called simple goiters, in which class are included occasional complications, and the cases of so-called exophthalmic goiter with hyperplastic glands. In the 5000 operations on the thyroid in the clinic at St. Mary's Hospital during the 5 years ending May 4, 1913, there were 336 operations for simple goiters which included transplantations in cretine, 59 operations for malignancy (5 carc. 7 sarc.) and no for syphilitic thyroid. There were 395 operations for exophthalmic goiter and 309 early operations which were not classified.

In discussion, CRILE confirmed Mayo's conclusions by his own experience, having operated over eight hundred cases of goiter of all types and varieties. He has seen few cases which cancer of the thyroid, not suspected before operation, but found by the pathologist, was cured. The safety of the operation for colloid goiter is so great at the present time that if the patient demands operation, one is justified in removing the gland for cosmetic reasons. The care Mayo suggested in the preservation of the voice is excellent. Crile has found that one may take out the entire lobe carrying the dissection right to the edge of the capsule, using small hemostats, and keeping bloodless field so that one can see

the lymph vessels as they run out of the gland from beginning to end of the operation. In this way it could be impossible to remove either parathyroid or to injure the recurrent laryngeal nerve.

Passing to another subject he wishes that commission might be appointed for the purpose of investigating the doloscent period of children living in grottoes districts. Crile believes that the syrup of ferrous iodid in five minims doses, three times daily for periods of month during every year will control nearly all cases of simple hypertrophy. One of the factors in the production of adolescent goiter lies in the geological change in the constituents of the earth where iron is not found as it once was. He finds that chemically one can make a very accurate prediction of the pathological condition of the gland. There is no more doubt in his mind as to the benefits of operation for exophthalmic goiter than of opening the abscess. Patients confirm that view and the clinician has grown not through references by physicians, but through references by patients.

He believes that there is a general feeling not only among surgeons but also among patients, that exophthalmic goiter is a disease that should not be allowed to go on until the stage of degeneration is reached. Crile believes that the late results of the disease are largely under control. One can operate now and control the hyperthyroidism by the principle of anoxo-association, and not have single changes for the worse at the end of the operation, no matter how severe the case, how large the gland, or how rapid the pulse rate.

Porter: Injection of Boiling Water in the Treatment of Hyperthyroidism. *J. Am. M. Ass.* 9, 3, 1st, 82. By Surg., Gynec. & Obst.

Porter experiences in the treatment of angiomata by the injection of boiling water as first advised by Wyeth, led him to use this method in three classes of cases:

1. Patients too sick to be safe surgical risks, and those having dividing or subexternal goiter the removal of which would be extra-hazardous.

Patients presenting mild symptoms.
3. Patients who refuse major surgical procedures.
He has treated over twenty cases, representing in all more than one hundred injections. From one to three injections were given in each treatment, of from 4 to 30 minims. The injection of boiling water into the thyroid gland is a safe procedure. The immediate effect of the injection is destruction of thyroid tissue and colloid. Further destruction of thyroid cells results from the formation of fibrous tissue consequent to the injection. L. G. Dew

Dufour: Two Cases of Hemithyroidectomy for True Exophthalmic Goiter of Tubercular Origin. (Deux cas d'hémithyroidectomie pour goitre exophthalmique vrai d'origine tuberculeuse). *Lyon med.*, 9, 3, 1st, No. 4. By Journal de Chirurgie.

Dufour reports two cases in which Leriche performed partial thyroidectomy for exophthalmic

goiter. The first was that of patient 41 years old who had had an enlarged left lobe for two years with palpitation, tremor, diarrhoea, and tachycardia but only slight exophthalmos. Fifteen days after partial thyroidectomy had been performed only the tachycardia remained and this was improved. The second case was that of a patient 33 years old who had had goiter since she was 19. Symptoms of Basedow's disease appeared in September 9, 1913. In May 9 she had an acute Basedow's disease and after symptomatic treatment to improve her condition she was operated upon in August, 1913 under local anaesthesia. The tachycardia and nervousness have disappeared but after five months the patient still has slight tremor although she is otherwise in excellent health. Four other partial thyroidectomies performed by Leriche and Poncet have had equally good results. Two of the patients have remained in good health for four years. The finding of tuberculous lesions in two cases tends to substantiate the statement of Poncet and Leriche that certain exophthalmic goiters are of tubercular origin. J. Dewar

Eppinger: H. Basedow Disease (Die Basedowische Krankheit). *Handb. d. Verord.* 9, 3, 1v. By Zentralbl. d. ges. Chir. u. L. Grenzgeb.

The article is a discussion of Basedow's disease on the basis of our present knowledge and the author's studies of the condition. After enumerating in detail the well-known symptoms and weighing their relative importance the author enlarges on his own theory. Eppinger believes that the theory of Kloss and his co-workers, that the condition is dysthyreosis, is incorrect. The investigations of A. Kocher as well as other considerations, force us to retain the theory that it is hyperthyroidism. Special reference is made to Kocher's nuclear lymphatic centers in goiter tissue. Persistent thyreism and Basedow's disease are not necessarily associated.

The paragraph on differential diagnosis is comprehensive. Typical cases are easily recognized. Atypical forms presenting only one or two symptoms can be classified as sympathetico-tonic or agonic.

Other subjects discussed are: The relation of the thymus to Basedow's disease; struma nodulifera; the various cardiac findings in goiter; glycosuria in Basedow's disease; Kocher's foetibasedow and Basedow's disease in children. The numerous complications of the disease can best be studied from the original article. Considering the brilliant operative results of Kocher with 76 per cent cures, the author recommends the surgical treatment decidedly. However, removal of the thyroid is not without risk. Even Kocher reports mortality between 3.4 and 6.7 per cent. Recurrences are not rare. A vascular appearance of the goiter constitutes an indication for operative therapy. X-ray treatment should not be used. Although the best results are obtained by operation, dietetic therapy is by no means valueless. A dietetic and gastric régime is essential. Of medicinal remedies the w-

those has successfully used atropin sulphate in pills (0.0005) two to three times daily especially in cases with severe diarrhoea. Injections of adrenalin are suggested so to 30 drops in 50 gm. of warm water should be allowed to flow in slowly for 5 to 10 minutes. Calcium carbonate is also recommended. If there is no improvement at the end of from one

to three months under medical care, operation is indicated. The author supports Mayo's suggestion to give atropine (belladonna) before a general anesthetic is administered, for he believes that the so-called thymus-death is nothing more nor less than a result of shock which seems to affect principally the vagus. DUGAN SCHULTZ.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Evans Cancer of the Breast. *Practitioner* Lond. 9, 2, 22, 7. By Surg. Gynec. & Obst.

The author believes the mode of local extension of carcinoma is best described by the term infiltration process since it travels by way of the lymph channels, and does not spread like a wave from a central focus, as would be implied by the term "permeation." Attention is directed to the clinical importance of the inconstant deep paramammary lymphatic gland situated at the outer border of the breast. When secondarily invaded it may lead to the belief that two primary foci exist. Other diseases may involve it and thus lead to confusion in diagnosis. Retraction of the nipple or tissue of the breast is not in itself an indication of malignancy but if gentle fondling of the breast fails to cause a contractile response of the nipple we have signs of some value.

The teaching that chronic interstitial mastitis may become malignant is considered unsound by the author for the reason that fibrous tissue cannot revert to proliferating cellular growth. It is using lactagol as an aid in differentiating malignant growths from chronic interstitial mastitis with some success.

Interesting papillary growths from the ducts—either intracystic or protruding—are to be considered in the differential diagnosis of carcinoma. Also in every case, the involvement of supraclavicular lymph glands, secondary to either carcinoma of the breast or to carcinoma elsewhere in the body should be carefully sought for.

The author believes that early thorough, radical removal, which includes the pectoralis major muscle as well, is the only course to pursue. F. R. RILEY

Ritter The Prognosis of Cystadenoma of the Breasts (*Zur Prognose des Cystadenomae mammae*). *Monatsh. f. Geburtsh. Gynäk.* 913, xxxv, 679. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

Following the removal of both breasts on account of cystadenoma, carcinoma developed in the axilla, which is now recurring. At the time of the removal of the cystadenoma, microscopic examination revealed no indications of carcinoma within it.

The author explains the extraordinary growth as follows. In seven cases operated upon for cystadenoma, he found lymph glands in the

axillary space which seemed to be still in a state of development and of a type that occurs only in cancer of the mammary gland. The presence of these growths in the cases described makes it seem probable that, though cystadenomata are generally benign, they nevertheless possess characteristics of malignant tumors which may cause the development of cancer after they have been removed. Ritter therefore advises the extirpation of the regional lymphatic glands in every case of cystadenoma of the breast. ZIMMERS.

Gourdon Bilateral Sterno-Clavicular Dislocation of Congenital Origin (*Luxation sterno-claviculaire bilatérale, d'origine congénitale*). *Ann. d'orthop. Par.* 9, 2, 19, 304. By Journal de Chirurgie.

In this article Gourdon reports the case of a boy of 5 who was suffering from slight dorsal kyphosis and bilateral sterno-clavicular dislocation. The dislocation was complete. Gourdon points out the difference between luxation of this kind and the subluxations often noted in young girls. In the case reported it was possible by palpation to twist the entire internal end of the clavicle around. The movements of the sterno-clavicular articulations were much exaggerated and sluggish. The attention of the boy and his parents had never been drawn to the luxation of the articulations. Gourdon believes that although the dislocation was not noticed until late, it was a deformity of congenital origin and was due to the absence of interarticular fibro-cartilage. He believes, rather than that it was the result of an atrophy of the osseous extremities and a malformation of the articulations and the entire ligamentous connection.

The prognosis is bad, as the deformity has a tendency to become exaggerated and it is difficult to correct by any method (arthrodesis, resection of the clavicle, bandages, pressure, or casts, etc.).

Gourdon recommends no therapeutic treatment for such cases. The projection of the clavicle is of little importance if, as in the case reported, the patient has the use of his limbs. ALBERT MOCHELET

Sehepelmann, E. Thoracotomy and Hydrothorax (Thoracotomie und Hydrothorax). *Klin. therap. Wochenschr.* 9, 2, 22, 68. By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author has conducted a series of experiments on animals to verify the conclusions of Teike as to

the effects of artificial hydrothorax. Single and double pneumothorax were produced in guinea pigs under the influence of morphine. Observations were then made of the frequency of respiration after removal of the pressure and also after the injection of physiological salt solution and olive oil into the pleural cavities under normal pressure. With unilateral pneumothorax and normal pressure the type of respiration was favorably influenced to a slight degree by the injection of salt solution, and to a greater degree by the injection of oil. The good effects were more marked when the quantities of the fluids injected were large (several tablespoonfuls). When both pleural cavities were opened neither the salt solutions nor the oil had any effect upon the rate of respiration.

The explanation given by Schepelman for these phenomena is as follows: In unilateral pneumothorax the weight and pressure of the injected fluid put the mediastinum at rest and does away with the injurious mediastinal flapping, so that the normal lung can breathe quietly. When both pleural cavities are opened mediastinal function is suspended and, as a result, the beneficial effect of injections of fluids have no chance to manifest themselves. The results of the author's experiments do not agree with the theories of Tesk either with regard to the effects of artificial hydrothorax or to the explanations in general. Nevertheless, Schepelman advises, beside the free opening of the thorax, the injection of warm physiological salt solution into the pleural cavities to prevent the harmful drying of the endothelial surfaces of the pleura, and to minimize the danger of infection. At the end of the operation, decided increase in pressure of the fluid washes out any germs that may have entered. Moreover, the salt solution remaining in the chest is more easily and quickly absorbed than the air in pneumothorax.

Drex.

Schur H., and Maebkes, S. The Indications for Artificial Pneumothorax in Pulmonary Tuberculosis (Zur Indikationsstellung der Pneumothoraxbehandlung bei Lungentuberculose). *Wien. kl. Wochenschr.* 93, xvi, 971.

B. Zentralbl. f. d. ges. Chir. Grenzgeb.

The authors briefly report their experiences with the pneumothorax treatment in cases of pulmonary tuberculosis. The best results were obtained in severe cases that showed marked involvement of one side only. The general condition improved rapidly, the temperature fell, and the appetite increased. In general, the results obtained by the authors with insufflation of nitrogen were similar to those of other investigators; no actual cures were observed. An exudative pleurisy was frequently observed but it always disappeared later.

The authors conducted experiments on animals to determine the cause of the favorable influence of pneumothorax upon tuberculous lungs. The results showed that the compressed lung can be infected artificially with tubercle bacilli introduced intra-

neously or by inhalation quite as readily as the healthy lung, and that therefore the favorable influence of the treatment is due, not to the compression, but to the changes in the connective tissue of the lung that occur in the period of pneumothorax compression.

From these results, as well as from the clinical findings, the authors conclude that in mild cases without severe general symptoms no improvement can be expected from the insufflation of nitrogen. When the constitutional symptoms are severe, however, and are due principally to involvement of the lung, this treatment is of value, alone in such cases, by reason of the compression of the lung and the resulting blocking of the blood and the lymphatic circulation, the absorption of toxins is made much more difficult. Advanced involvement of the other lung, cardiac defects, kidney affections, and extensive pleural adhesions are contraindications to the treatment.

Drex.

Kaufmann, K. The Technique of Artificial Pneumothorax (Zur Technik der künstlichen Pneumothorax). *Internat. Zentralbl. f. d. ges. Chir.* 1903, 93, vii, 330.

By Zentralbl. f. d. ges. Chir. u. Geburtsh. d. Grenzgeb.

Kaufmann gives Brauer's method of incision the preference over the method of puncture. The disadvantages of the former are the occurrence of tissue emphysema, which is seldom absent, and the formation of pulmo-cutaneous fistulae. Hence the procedure is not successful. Kaufmann mentions two personal observations of these unfortunate complications. He has attempted to overcome the deficiencies of both methods. His procedure, which is practical, and has obtained good results for the last three years in the sanatorium of Schlossberg, is as follows:

The skin and also the underlying tissue are infiltrated with the anesthetic fluid as far as the pericostum of the inner margin of the upper rib. A trocar is chosen of which just fits. Salomon cannula approximately 5 mm in thickness, is then plunged in up to the infiltrated rib near its inner border. The cannula is withdrawn and the Salomon cannula is inserted up to a certain mark on the trocar, which is well fixed on the rib. The patient is then told to breathe deeply. At the same time under gentle but steady pressure the trocar with the cannula is inserted into the intercostal space. The blunt point of the cannula thereby immovably itself between the bundles of intercostal muscles. The tense pleura is penetrated with one stroke, the cannula being held somewhat obliquely. The lateral opening of the cannula, the position of which as indicated by the mark above mentioned, should be turned toward the pleural opening either above or below. A soft sound is used to determine whether the free cavity has been reached. Oxygen should always be introduced first. For this purpose a small modification of Brauer's nitrogen apparatus is essential. The latter is described by means of a diagram.

SCHWABACH.

Tuffier T. Final Result of an Intrathoracic Sub-pleural Graft in Case of an Intrapulmonary Suppurative Cavity on the Right Side (*Résultat définitif d'une greffe intra-thoracique sous-pleurale dans un cas de cavité suppurée intrapulmonaire droite*) *Bull et mem Soc de chir d Par* 9 3 xxxix, 740 By Journal de Chirurgie.

Tuffier reports the case of a patient who had a depression in the bony framework of the thorax which was due to a large intrapulmonary cavity caused by gangrene. He remedied the depression by grafting into the pleural cavity a large lipoma that had been preserved on ice. At the present time, two years later the patient is in the best of health the thorax is symmetrical the cicatrix elastic, white and without adhesions. There is no persistent expectoration and auscultation there are no abnormal sounds. The patient works without fatigue or pain. J. Dwyer

TRACHEA AND LUNGS

Derjushinsky S. E. Artificial Breathing Continued Successfully for Fifteen Days (*Erfolgreiche künstliche Atmung im Laie von 5 Tagen*) *Verhandl d XII Kongr russ Chir* 9 3, xli, 203 B. Zentralbl f d ges Chir. Grauegh

Derjushinsky reports the only case that is known of artificial respiration continued successfully for fifteen days. The patient had pain in the neck and after six days was admitted to the hospital with paralysis of all the extremities and facial paralysis on both sides bilateral lagophthalmos, and paralysis of the muscles of mastication. The pupillary reflexes were weak, and Babinsky reflex was noted. The temperature and the condition of the internal organs were normal. At the end of two weeks there was complete paralysis of all extremities and gradual cessation of respiration. Artificial respiration was then begun, and as spontaneous breathing did not return it was continued for fifteen days without interruption. For the first three days the pulse was rapid (100-90) from the fifth day on it was normal. Spontaneous breathing began gradually after fifteen days, but stopped after five days. Artificial respiration was then carried on for three days longer after which normal breathing was resumed. For the following three weeks the patient suffered from croupous pneumonia and intestinal paralysis. Muscle atrophy was marked but it disappeared completely through slowly friction massage and electrical treatment. Four months the patient was discharged. She has been well ever since (eleven months).

Heintz

Petrén G. Pulmonary Embolism as Cause of Post-Operative Death (Scaden efter obstruerad Lungembolie als postoperative Todesursache) *Beitr z Klin Chir*, 9 3, lxxvii, 603 By Zentralbl f d ges Chir. Grauegh.

After brief historical review the author draws conclusions from study of vast amount of mat-

terial some of which is his own. Death from pulmonary embolism occurs most frequently after laparotomy. One per cent of those operated upon for myoma, the same percentage of those who undergo laparotomy and about two-thirds the per cent of those operated upon for hernia die of this condition. Embolism is as frequent in one sex as in the other. It does not occur before the fifteenth year. It is common between the thirtieth and forty-fifth years and most frequent in later years regardless of the general condition of the patient. Vascular changes constitute an important etiological factor but are by no means constant finding.

Petrén next discusses the pathological anatomy, the localization and the origin of embolism. Two-thirds of the fatalities occur between the fourth and fourteenth day after operation. In the case of patient in whom a positive diagnosis of thrombosis has been made the danger is relatively less. Slight embolism may now and then precede the appearance of a thrombosis that is already present but has not yet been diagnosed. Mäshler's symptom was not typical in any of the author's cases, and only exceptionally does it precede the appearance of an embolism that is fatal. It is quite improbable that embolism is caused by infection. On the other hand, cardiac weakness is often noticed in this condition. Also changes in the blood itself are no doubt contributory. The prophylaxis consists largely in preventing the formation of thromboses. This can be accomplished by early rising after operation, stimulation of the heart, respiratory exercises, and free evacuation of the bowels. When thrombosis has already developed, absolute rest is imperative. This must be required also in cases in which thrombosis is merely suspected. In conclusion the author discusses Trendelenburg's operation, and reports observations made in some of his own cases. J. Dwyer

HEART AND VASCULAR SYSTEM

Jacob O. The Treatment of Tubercular Pericarditis by Pericardotomy Without Drainage (*Traitement de la péricardite tuberculeuse par la péricardotomie sans drainage*) *Bull et mem Soc de chir d Par* 9 3 xxxix, 75 By Journal de Chirurgie.

Jacob recalls that twenty years ago Rochard made a report to the Society in regard to a patient suffering from tubercular pericarditis with great sero-haematic effusion. A pericardotomy without drainage was performed on this patient and the recovery was uneventful. Recently Jacob had the opportunity to perform again the same operation on a young soldier suffering from tubercular pericarditis. In this case also the patient was entirely cured.

There are, therefore, reported cases of tubercular pericarditis that have been treated and cured by pericardotomy without drainage. These two cases seem to be important and to speak in favor of the treatment and technique that Jacob recommends. J. Dwyer

PYLORUS AND ESOPHAGUS

Gulies. Congenital Stenoses of the Esophagus
(Les sténoses congénitales de l'œsophage). *Ann. med.*, 9 3, xxi, 162. By Journal de Chirurgie.

Congenital stenosis of the esophagus is rare. Gulies observed only 4 cases of it in 400 esophagoscopies. In all of these cases it occurred in the region of the cardia and all of the patients were males from 0 to 30 years old. Each case had been previously diagnosed as a gastric spasm of the esophagus, but the spasm in reality was only secondary to organic stenosis.

Esophagoscopy, which is the only means by which an exact diagnosis can be arrived at, has shown the same thing in each case. In the region of the cardia there is a sort of valve more or less inflamed, modified by esophageal peristalsis but preserving always its characteristic appearance and its easily recognizable sharp border. It is impossible to confound these congenital strictures with spasms of the esophagus, in which the orifice is contracted and serrated or with the inflammatory stenosis, in which there is no valve-like appearance or with pressure stenosis, in which one of the walls of the esophagus is pressed upon by tumor and the lumen acquires the shape of half moon or a cross.

The prognosis is grave but depends essentially on the degree of stenosis and the treatment.

The treatment used was as follows:

1. The esophagitis, which in 11 stenoses has had effect, was reduced. This reduction was accomplished by proper diet and by the use of the esophagus four times a day with an alkaline water with the aid of Faucher tube.

2. The opening was dilated by olive oil filiform bougies. A fine bougie was left in for several hours to make passage.

3. It is nearly always necessary to actually cut the valve by esophagotomy. In the author's last three cases he used circular electrolysis. In these instances the congenital stricture was accompanied by a slight eccentric stenosis, and the

electrolysis gave results that could not have been obtained by esophagotomy.

When enough of the valve is destroyed and the esophagitis has been reduced by alkaline lavage and proper diet, there is but slight chance that the stenosis will recur. In all of the cases reported by Gulies alimentation rapidly became normal.

J. DEWITT.

Geselowitch. A Case of Esophagitis Desiccans Following Poisoning by Acetic Acid (Ein Fall von Esophagitis desiccans nach Essigsäurevergiftung). *Russk. Med.*, 9 3, xii, 172.

By Zentralbl. f. d. ges. Chir. u. i. Gynäc.

On the seventh day after taking acetic acid the patient ejected during an attack of vomiting the mucous, submucous, and part of the muscular layers of the esophagus. The structures retained their tubular form. Twenty cases of esophagitis desiccans have been described in the literature, but no case following poisoning by acetic acid. The author believes that the occurrence of this condition could be noted more frequently if the vomitus were more carefully examined.

JORR.

Retch, T. M. Types of Occlusion of the Esophagus in Early Life. *Am. J. Dis. Children*, 1913, vi, 1.

By Surg. Gynec. & Obst.

This article is a report of three cases of occlusion of the esophagus and is well illustrated by X-ray pictures. The first case was that of boy 5 months old. The stricture was very tight. Gastrostomy as performed but the child died.

The second case was in girl 9 years old. Orange pulp and penny were found in the esophagus. The esophagus was very much dilated in the lower third at distance of 25 centimeters from the teeth there was stricture one-half centimeter in diameter. The stricture was dilated with the esophagoscope and the patient recovered.

The third case was that of boy five and three-quarters years old and was really a spasm of the esophagus.

CAMPBELL & GARLICK.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Murphy, J. B. Desmoid Tumor of Rectus Abdominis. *Surgical Clinics of John B. Murphy*, 9 3, 2, No. 2. By Surg. Gynec. & Obst.

A woman of 31 entered the hospital on account of a tumor in the right rectus above the umbilicus. The tumor was first noted some 6 weeks previous as a hard and fairly movable lump. Six months before during the last 3 months of pregnancy she suffered more or less constant pain in the region of the tumor. The pain grew worse but disappeared after parturition. There had been no change in the size or consistency of the tumor in the past 6 weeks, and

it was never tender. The patient's personal history was negative. Her father, mother and brother had died of carcinoma.

At operation the mass was found to be the size of the index finger and to involve $\frac{3}{4}$ of the diameter of the rectus. It sprang from the posterior layer of the sheath and grew out into the muscle. On operation it was separated from the peritoneum without opening the latter. The recovery was uneventful. The stitches were removed on 4th day and the patient was discharged on the 23rd day being advised to wear an abdominal support for some time to give the tissues every opportunity to unite solidly.

L. J. MURKELL.

Prepping, K. Rehn Treatment of Peritonitis (Die Rehn'sche Behandlung der Peritonitis) *Deutsche med. Wochenschr.* 9 3 xxviii, 906.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. a. d. Grenzgeb.

For appendicitis peritonitis Prepping recommends Rehn's treatment, which consists in a median incision, irrigation, eversion, and drainage of the pouch of Douglas. The article is mainly a criticism of the method of Rehn with the method of Rotter. The latter consists of irrigation of the abdominal cavity and mopping without drainage. Statistics of the last two years show an improvement in Rehn's mortality percentage. It is evident from the article, however, that good results were obtained with both methods. The mortality in Rehn's cases during the last year was eighteen per cent, as against twenty four per cent for the year previous, that in Rotter's cases was 1.8 per cent.

Blecher Camphorated Oil in Peritonitis and Abscesses in the Pouch of Douglas (Camphorated Oil in Peritonitis und Douglasabscessen) *München. med. Wochenschr.* 9 3, ix, 26.
By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author treated five cases of severe peritonitis, that occurred in fifty appendicitomies, with one per cent of camphorated oil in amounts as large as 100 grams. The rapid improvement of the general condition and the ultimate recovery of all of the patients were attributed to the camphor treatment. In all of the cases an abscess was formed in the pouch of Douglas, which was also attributed to the camphor treatment. The oil checks the absorption, and reflex inflammatory process that begins later causes an increase in the exudation. If there are no adhesions the exudate drains down easily between the oiled loops of bowel. The heavy exudate, covered by a fine coat of oil, is retained in the dependent parts of which the pouch of Douglas is the lowest point. In two cases of acute paralysis of the stomach when the pelvis was elevated for a few days the formation of the abscess was delayed. Formerly the exudate from the pouch of Douglas was regarded as favorable rather than an unfavorable symptom. To prevent such an exudate, glass or rubber drain, without gauze should be inserted into the sac.

Härtel, F. Tubercular Peritonitis (Die tuberkulöse Peritonitis) *Ergebn. d. Chir. Orthop.* 9 3, vi, 370.
By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author reviewing the more recent literature, refers to 9 articles on the subject, which contain the latest ideas on the etiology, frequency and prognosis of this condition. The greater part of his article is devoted to discussion as to whether the condition should be treated surgically or by the non-surgical or so-called conservative method.

The author's personal opinion is as follows: It seems to me that the patients on whom laparotomy is performed have decided immediate advantage

over those treated by other methods, but the longer they are kept under observation afterwards the plainer it becomes that they gradually lose this advantage, and the prognosis becomes about the same as that for the non-operated patients. In any case, after laparotomy, careful internal and restorative treatment should be persisted in for a long period, if possible in a sanatorium, a requirement that in most cases is difficult to meet. Härtel's article is more of a compilation than an expression of opinion.

Stocker S. The Employment of Tincture of Iodine in Dry Peritoneal Tuberculosis (Die Anwendung der Jodtinktur bei der trockenen Peritoneal-tuberculose) *Schweiz. Rundschau f. Med.*, 9 3 xiii, 743.
By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

Stocker after employing the hot air treatment in cases of peritoneal tuberculosis with unsatisfactory results, endeavored, following the suggestion of Hofmann, to obtain a more powerful hyperemia by applying tincture of iodine to the peritoneum.

Experiments with rabbits showed that when the bowels were painted with tincture of iodine no adhesions were to be found when the abdomen was opened later. Instead the surfaces were quite smooth. In six other rabbits the abdominal cavity was opened and a freshly prepared emulsion of tubercle bacilli was painted on the peritoneal surface of the bowel. In three of these cases the application of the emulsion was followed with a coat of tincture of iodine before the abdomen was closed. In the others no iodine was used. At the end of four weeks no tuberculous changes were found in the animals in which the application of iodine had followed the introduction of the tubercle bacilli, and there were no adhesions. The other three animals showed distinct tuberculous changes. To these last three animals tincture of iodine was then applied as it had been applied formerly in the other three cases. At the end of two weeks there were observed definite retrogression of the changes.

From these experiments the author concludes that tincture of iodine exerts a direct curative influence upon tuberculous processes that the danger of the formation of adhesions as the result of its use is much exaggerated and that the application of the tincture of iodine may be safely employed in the case of the human being. Stocker reports the case histories of two patients that he treated with good results. Contrary to Hoffman's observations, ascites did not develop in these instances.

Ruseonoff A. G. Tubercular Peritonitis and Its Operative Treatment (Zur Frage der Bauchfell-tuberculose und ihrer operativen Behandlung). *Dissertation*, Moscow 9 3.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. a. d. Grenzgeb.

The first part of this dissertation is devoted to a careful survey of the literature, the pathogenesis, the etiology and the symptomatology of tuber-

culosis of the peritoneum. The second part is discussion of the operative treatment and the indications for operative interference. The author has had twenty-four operative cases, nineteen women and five men. According to his statistics, tubercular peritonitis occurs most frequently in women.

The prognosis depends on the character of the tubercular process and the involvement of other organs. Operation must be performed early while the general condition is still good. Adhesions should not be broken up except in cases of intestinal obstruction. Eight of the author's patients that were operated upon died: two at the end of the second week, one at the end of a month, one after three months, three after six months, and two after one year. The cause of death in all of these cases was progressive tuberculosis. In nine instances the patient remained well for periods varying from two to five years. The prognosis is best in fibrous tuberculosis, and worst when caseous granulations are formed.

Dietary treatment according to the thor is next in importance to operative treatment. Puncture of the abdomen should be substituted to operation only in those cases in which serious disturbances in respiration or circulation contraindicate laparotomy. Mild attacks of the disease especially in children, should be treated conservatively. In acute cases presenting the picture of acute suppurative peritonitis operation is indicated. If no serous exudate is found tampon should be applied. Conservative treatment is best for dry peritoneal tuberculosis with adhesions. In conclusion the author gives ninety references from the literature.

HANNA.

Friedman, L. Retrograde Incarceration—Hernia on W. *Surg. Gynec. & Obst.* 9: 5, XVII, 97.
By *Surg. Gynec. & Obst.*

In the type of strangulation known as retrograde incarceration, the incarcerated portion of herniated organ lies not in the hernial sac, but within the abdomen near the hernial constricting ring, while that part of the organ lying toward the periphery from the hernial orifice and within the sac is nearly normal or usually shows evidence of only moderate interference with its blood supply. The organs involved may be the appendix, fallopian tube, Meckel's diverticulum, omentum, and intestine (most often the small intestine). When the intestine is involved, two or sometimes three distinctly separate loops of gut are found in the hernial sac, while the incarcerated loop, or so-called connecting loop, is within the abdomen near the hernial orifice.

Thrombosis of the mesenteric vessels and hemorrhagic infarcts in the mesentery are present in severe cases of connecting loop incarceration. Clear turbid, or bloody fluid is present in abdomen. The symptoms and diagnostic signs depend upon the length of the incarceration and are as follows:

1. Large-sized tumor in scrotal region, sometimes asymmetrical.
2. Colicky pain in lower abdomen on the side of the hernia, pain on pressure on side of hernia, immediately above Poupart's ligament.
3. Rigidity above Poupart's ligament on side of hernia.
4. Local tympany.
5. Presence of sausage-like mass in lower abdomen on side of hernia.
6. Perceptible asymmetry of lower abdomen, the hernial side being higher.
7. Dullness on percussion of flanks due to fluid and perceptible fluid wave.
8. Blumberg's sign of peritoneal irritation.
9. Greater abdominal than scrotal tenderness.

After opening the sac
The presence of two or three distinctly separate loops of gut.

2. Escape of fluid, clear or bloody from the abdominal cavity.

Peters. A New Case of Hernia Subtransversalis (Ein neuer Fall von Hernia labialis posterior; hernia subtransversalis). *Ges. d. Rindischen* 9: 3, 2, 1911. By Zentrabl. u. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The author reports a case of hernia subtransversalis, operated on by von Franquet, thus adding one case to the ten hitherto published. Like von Winkler he differentiates hernia subpubica, hernia labialis anterior and hernia subtransversalis or labialis posterior. In the third, the hernial opening is between the rectum, coccyx, tuber sacralis and m. transversus perinei. These perineal hernias are caused partly by the passing of the intestinal loops through congenital gaps in the pelvic floor. The gaps may be enlarged by lacerations during parturition and especially by forceps delivery. By the great strain upon the abdominal musculature intestinal loops or omentum may then be forced through. These hernias have the opening in the m. levator ani and the sac is formed by skin, fat, these superficial and pelvis fascia subserosa and peritoneum. Zuckerkandl and Ebner are of the opinion that perineal hernias occur only with congenital invagination of the peritoneum into the pouch of Douglas. The author considers this predisposition but not *conditio sine qua non*. The congenital perineal hernias are described in the literature.

Von Franquet laid the hernial opening free, excised the sac, closed the opening with three horizontal sutures and pulled the levator and over it to the coccyx without grasping the peritoneum. The opening was on the outer border of the pelvic part of the levator and at about the height of the middle of the perineum and close beneath the transversus perinei. The patient has had no relapse for two years and half. The findings before and after the operation are illustrated.

These hernias may be treated with trusses if there are no incarcerations and if the hernias can be replaced; otherwise operation is necessary. KNOOP.

Santucci A. A Rational Deep Suture for Blandin Operation (La suture raionnelle d plan profond, dans le procédé de Blandin) *Chir. Jour.* 9 3, 221, 779. By Journal de Chirurgie.

The thor states very truly that grave consequences may result from tying the sutures that unite the crural arch with the internal oblique and transversalis muscles. Such tying may cause gangrene of the parts tied, as the result of the mechanical action, and of the neighboring parts, as the result of the *interruptio in the circulation*. The blood vessels that nourish the muscles run parallel to their fibers. Although it is true that the deeper the sutures are placed in the muscles the better from the standpoint of strength there is, nevertheless, great danger of an extensive necrosis.

On this first point there can be no question — the sutures must be placed in tissue that is firm and they must draw together without strangulating. To meet these requirements the author proposes substituting for the ordinary interrupted sutures series of sutures in the shape of U the base of which should include the crural arch and the arms of which should pass through the deep muscle and the ponsurosis of the external oblique muscle and be tied superficially to the latter. His plan is not bad as *proven*. It is to be feared by that by his method the suppression of the deep muscles would be accomplished less easily than by the usual technique. As a new argument in favor of his method the author adds that, in case of infection, the sutures, though deep in their action, are easy to get.

PHILIP FRIDT

Gundermann, W. The Significance of the Omentum in Physiological and Pathological Conditions (Über die Bedeutung des Netzes in physiologischen und pathologischen Beziehungen) *Beitr. Klin. Chir.* 9 3, 1000, 587. By Zentralbl. f. d. ges. Chir. Grenzgeb.

The omentum of the mammal is a peculiar highly lymphatic, membranous organ developed from the excessive growth of the mesogastrium. Its function is not definitely known. Its importance as a reservoir of fat is doubtful. It is not an anchor for the transverse colon. It is, however, a regulator for the gastric vessels during physiological hyperemia of the stomach. The author believes that under pathological conditions ligation of the omentum is the direct cause of post-operative hemorrhage of the stomach and bowel, especially in elderly people the valves of whose omental veins are defective. It seems that the degenerated liver tissue follows a slight thrombosis of the portal veins is toxic to the gastric vessels which are overfilled after operation. Another function of the omentum is to serve as place for collateral circulation is established in cirrhosis of the liver and uterine tumors. It has no movement of its. The absence of the omentum decreases the resistance against peritoneal infection. Intraperitoneal free omentum transplantation is possible only when asepsis is perfect and when there

are no adhesions. Foreign substances (carmin, cerulein) introduced into the abdominal cavity are partly absorbed through the diaphragm and its lymphatics within fifteen minutes. The remainder is fixed by the omentum and transported by phagocytosis through the omental lymph stream within twenty-four hours. JOSEPH.

Schmieden V. Circumscribed Inflammatory Tumor Formation in the Pelvis, Originating from the Greater Omentum (Über circumscribte entzündliche Tumorbildung in der Bauchhöhle, ausgehend von Netz) *Berl. klin. Wochenschr.* 9 3, 1, 608. By Zentralbl. f. d. ges. Chir. Grenzgeb.

Schmieden compares cases described by Küttner of idiopathic tumor-forming fat necrosis of the omentum with a case in which the development of tumor the size of a man's head extended over many months. The tumor could not be extirpated, and its growth was not influenced by exposure and incision. Finally

high grade intestinal obstruction resulted, so that an extensive operation was necessary (excision of the cecum and ascending colon surrounded by the tumor growth, and lateral anastomosis of the last loops of resected small intestine that enter the tumor with the transverse colon). Only when the irritation, produced obviously by the passage of fecal material had been excluded did a retrogression of the tumor take place. At the last examination (eight months after the operation) the tumor could not be palpated.

Schmieden is unable to explain the causes of the formation of the morbid entity in this case. He believes that it must be attributed to thrombotic processes with nutritional disturbances in the omental fat emboli, hemorrhages, or circulatory disturbances produced by torsions of small pieces of omentum with incomplete constriction. Adipose people are predisposed. In the differential diagnosis, beside real tumors, actinomycosis must be taken into consideration. REINHARDT.

Frazier. Mesenteric Cysts, with Report of a Case of Sanguineous Cysts of the Mesentery of the Small Intestine. *J. Am. Med. Assn.* 9 3, 21, 97. By Surg. Gynec. & Obst.

A review of the literature on the subject of mesenteric cysts is attempted, together with complete report of a case observed by the author.

The origin of cysts of the mesentery is in many cases obscure. Many classifications have been offered by investigators but that which the author prefers is the one adopted by Moynihan. He classifies them according to their nature as (1) serous cysts arising either from a lymphatic dilatation from hemorrhages between the layers of the mesentery (2) chylous cysts, probably the most numerous, containing milky white fluid and due to a dilatation of some of the lacteals or chyliferous vessels (3) hydatid cysts, due to the tenia echinococcus (4) dermoid cysts and (5) sanguineous cysts, the class to which the case reported belongs.

The cysts vary in size from that of a pea to the size of a man's head. They are usually oval in shape, their greater diameter being vertical. They are either uni- or multi-locular. The wall is composed of fibrous tissue and varies in thickness from a thin membrane to 1 cm. The character of the contents depends upon the origin of the cysts and also upon whether hemorrhages have taken place into the cyst or not.

The symptoms depend largely upon the size of the cyst and upon its relation to the neighboring viscera. Many of the smaller cysts are discovered only at autopsy and cause no inconvenience during life. The symptoms which mesenteric cysts most commonly produce are pain more or less severe, digestive disturbances, and symptoms of acute or chronic intestinal obstruction. Coincidentally there may be loss of weight and inanition and emaciation, and if operative measures are postponed too long peritonitis may develop from rupture of the cyst or the patient may die of inanition.

Permeation and palpation reveal the usual signs of abdominal tumor and fluctuation may sometimes be elicited.

The treatment, in all cases, should consist in operative measures. Theoretically there are four possible modes of procedure: (1) aspiration (2) enucleation, (3) resection of the involved intestinal segment followed by excision and (4) incision and drainage. The first procedure has become obsolete. Whenever possible the radical procedure should be attempted, but when there are acute symptoms of intestinal obstruction it may sometimes be necessary to merely incise and drain, as many of these patients with acute obstruction will not tolerate any but the simplest and most rapid operation.

The case reported is that of a man who fell eleven years previous to the operation and received severe blow upon the abdomen. Subsequently he noticed a small tumor above the symphysis, which very gradually became larger. During the past year this growth had become more rapid. The operation showed large mesenteric cyst near the ileo-caecal valve and subsequent examination showed it to be of the sanguineous variety. The cyst was removed and a large piece of bowel resected with it. An uneventful recovery ensued. J. H. KATZ.

Carroli, F. Mesenteric and Retroperitoneal Blood Cysts (Sur les kystes hématiques mésentériques et rétroperitoneaux). *Clin. chir.* 9, 1, 20, 75. By Journal de Chirurgie.

This article, which is a critical study of the subject, includes an account of an unpublished case treated by Spangaro. A man 65 years old had smooth, elastic and fluctuating subumbilical tumorous mass in the abdomen about the size of seven months pregnancy. The mass was slightly mobile but was not influenced by respiration. On operating, Spangaro found cyst surrounded by the intestines and covered by peritoneum, on the surface of which were numerous large blood vessels. He tried to

enucleate it but it adhered so closely to the uterus that some of the posterior wall had to be left in. Its contents were a serosanguineous fluid and red blood clots. A few days later a fistulous opening appeared at the lower angle of the wound from which escaped a seropurulent fluid. The subject gradually lost weight and died four months after the operation.

The autopsy showed that the fistula led to a cavity in front of the colon. In this cavity were found remnants of the cyst that had not been removed.

Histological examination showed that the wall of the cyst was made up of old connective tissue lymphoid tissue, and new very vascular connective tissue. Its thickness varied from 1 to 3 mm.

The author believes that this was an old lymphatic cyst which had become bloody as the result of a chronic inflammatory condition of its wall.

FRANK FERRIS.

GASTRO-INTESTINAL TRACT

Carnot, P. Movements of the Stomach and Duodenum Studied by the Perfusion Method (Les mouvements de l'estomac et du duodénum étudiés par la méthode de la perfusion). *Compt. rend. Soc. de Biol.* 9, 3, 1299, 1305.

By Journal de Chirurgie.

By means of the perfusion method described by Carnot and Gignard, Carnot has been able to study the movements of the stomach and duodenum of the cat. According to this method, the detached base of viscera, distended by semiliquid substance, is immersed in Cloëke's oxygenated fluid or in de-aerated blood. Carnot studied the movements from the point at which they started to the point at which they passed the pylorus and went over into the duodenum.

On the fundus side the stomach contracts to form a veritable balloon confined below by the mediogastric groove. The part of the stomach that is intermediate between the fundus and the prepyloric antrum is equally contracted. During activity the stomach takes on an hour-glass form which is modified by the peristaltic waves passing from the cardia to the pylorus. It is an exaggeration of this physiological phenomenon which gives rise to intermittent tension of the epigastrium when the pylorus is obstructed. The prepyloric antrum is bounded on the side near the stomach by a groove of contraction similar to the mediogastric ridge, and peristaltic waves tend to expel its contents through the pylorus. In the duodenal bulb there are antiperistaltic movements tending to exert on the pyloric ring pressure equal to that of the pyloric antrum. The pylorus itself does not participate in these contractions directly. When it opens the duodenal bulb contracts and is then moved by peristaltic contractions which force the bolus of food down into the small intestine.

The perfusion method makes it possible to determine exactly by cinematography the movements of

the gastroduodenal apparatus, an apparatus that, on the basis of its partial contractions, has three distinct parts i. e., the fundus, the prepyloric antrum, and the duodenal bulb. This method confirms also the results obtained by radioscopy after the ingestion of bismuth. **PARKES CAWCE**

White, F. W., and George, A. W. *The X-Ray Method in Diagnosis of Gastric and Duodenal Ulcer*. *Bailey M & S J.* 9 3, dist. 57
By Surg., Gynec. & Obst.

According to the personal experience of the authors, X-ray methods add materially to the conclusiveness of diagnosis in gastric and duodenal ulcer. Serial radiographs are used as basis for conclusions, the screen observations serving to give general survey of conditions and to show the facts about mobility and motility.

Radiological signs that may accompany ordinary gastric ulcer are: local spasm seen most often when the stomach is nearly empty; reflex pyloric spasm of variable duration; vagotonia; and, in half of the cases, resid. after six hours, due to spasm of the pylorus, irregular peristalsis or organic obstruction. In hour-glass contractions following ulcer the segmentation is clean cut and constant, and the stomach is drawn to the left by contraction along the lesser curvature, in adhesions to the liver and gall-bladder the stomach is drawn to the right and fixed there. Penetrating ulcers give characteristic protrusion of the bismuth, with or without gas bubble at the top.

In duodenal ulcer the shadow of the first portion of the duodenum undergoes change in form and outline, and gastric motility is affected. Constant filling defects in the caput duodeni are recognized from series of plates made to show this structure to the best advantage in each individual case. Frequent use is made of the lateral ray projection, with the patient lying on the right side. Worm-eaten edges in the bismuth-duodenal shadow are common in duodenal ulcer but may be present also in adhesions and malignancy. The gastric motility in duodenal ulcer is variable and the actual time of emptying depends upon a number of factors the result of which in given case may be anywhere from a marked hypermotility to grave degree of stasis.

It is predicted that this line of work will become much more valuable in the future as the significance of the various X-ray findings becomes more firmly established. The authors handle the method at present is considered very helpful if not indispensable. **HOLMES E. PORTER**

Mills, R. W. and Carman, R. D. *The X-Ray in the Diagnosis of Gastric Ulcer and Its Sequels*. *Surg. Gynec. & Obst.* 9 3, xvii, 1.
By Surg., Gynec. & Obst.

According to the authors there is need of co-operation on the part of the internist and the roentgenologist in the utilization of the X-ray for purposes of gastro-intestinal diagnosis. A discus-

sion is then given of gastric anatomy and physiology as revealed by the X-ray. The changes in the stomach as indicated by the X-ray that may indicate the presence of gastric ulcer are then discussed under four headings i. e., (1) changes in tonus (2) changes in position and form (3) changes in peristalsis and motility and (4) the relation that areas of pain, tenderness, and mass bear to X-ray findings.

Changes in tonus give different X-ray findings according to the part of the stomach that is involved. Of changes in tonus resulting from ulcer of the pars pylorica nothing is known as yet. Direct abnorm. malities of tonus in the pars cardiaca and pars media are due to the ulcer. Spasm of the circular muscle fibers of the stomach at the level of the ulcer result in the formation of incisura on the greater curvature. The authors discuss the specificity of such incisura, their site and form, and the degree to which the stomach is divided by them. They give also criteria as to the genuineness of the X-ray picture of incisura, and a discussion of pseudo-incisura and the diagnostic value of the real incisura.

Changes in the position and form of the stomach may result from ulcer. When they occur as the result of causes within the stomach, the stomach as a whole is in a left median position. This position may be due to an acquired atony. The dislocation of the pylorus to the left may be the result of contractions. Indications of change in form of the stomach due to gastric ulcer are the visualization of the ulcer crater as a projection on the periphery of the gastric shadow the niche sign, and the formation of the hour-glass stomach. All of these are described and similar phenomena not indicating ulcer are discussed. When changes in position and form result from uncompensated obstruction of the pylorus by ulcer the stomach occupies a central position as a whole and is laterally enlarged, especially to the right of the median. The gastric residue is also in a central position. If the ulcer obstruction is compensated, the findings are not characteristic. In such cases the stomach is enlarged but normal in position and form.

Changes in peristalsis and motility may denote the presence of gastric ulcer. In the case of non-obstructive ulcer there are no characteristic changes in peristalsis though the peristalsis may be increased. Antiperistalsis is discussed in its relation to non-obstructing ulcer of the pars pylorica. Delayed motility is suggestive of ulcer. In cases of uncompensated ulcer of the pylorus, hyperperistalsis may at some time be the rule and there may be marked delay in the motility.

Under the heading relation of areas of pain, tenderness, and mass X-ray findings are discussed the necessity for care in making deductions, the possibilities as to the relation of pressure-sensitive food to the stomach shadow the causes of ulcer pain and tenderness, hypertension, and reflex irritation of the parietal peritoneum. Hypertension plus hyperexcitability, according to the authors, is the cause of unlocalized ulcer pain. As a diagnostic aid it is

useless because unlocalized. Pressure tenderness is also discussed. Gastric ulcer is not intrinsically painful. Pressure tenderness due to a reflex does not as a rule correspond to the ulcer site. Irritation of the peritoneal peritoneum as a result of ulcer peritonitis gives, as a rule, definite information as to the location of the ulcer and adds to the X-ray findings if it corresponds to the site indicated by the X-ray. A palpable mass of ulcer origin probably corresponds to the ulcer site because of associated perigastritis and partial peritoneum irritation.

The article is illustrated with numerous radiographs and is followed by a list of references to the literature of the subject.

Röpke, W. Chronic Gastric Ulcer in the X-Ray Picture of the Air-Inflated Stomach (Das chronische Magengeschwür im Röntgenbilde des luftgeblähten Magens). *Mitt. d. Chirurg. d. Med. Chir.* 9, 3, 1911, 307.
B. Zentralbl. f. d. ges. Chir. 1, 1, 1911, 1.

Röpke is enthusiastic in regard to the X-ray examination of the air-inflated stomach. While the inflation with carbon-dioxide gas is dangerous because it extends the stomach suddenly and without any regard to its size, the careful introduction of a sound and inflation with air is quite harmless and is always permissible provided that at least month has elapsed since the last free hemorrhage.

With the aid of excellent X-ray pictures the author first describes the appearance on the plate of the normal stomach when inflated with air. When completely inflated its outline is curved smooth line when incompletely inflated, its outline shows indentations and the folds in the stomach wall are plainly visible. A stomach with a simple non-perforating ulcer when inflated has a very clear asterisk-like appearance in the picture and by the air inflation method in most cases the details are more clearly brought out and the whole picture better defined than by the bismuth method. A sharp constriction in the stomach picture together with knotted or oblique band-like shadows, or a solid shadow on the lesser curvature either connected with the band-like shadows or at the end of the knotted shadows may be regarded as practical proof of the presence of gastric ulcer, particularly if at the same time the clinical history has indicated such condition. If the ulcer has penetrated into the surrounding tissue and organs, the X-ray picture is different and also in this case is so characteristic that a diagnosis can be made from it with certainty. In such pictures the author noted more or less clear areas within the outline of large, solid shadow which encroached upon the lesser curvature. On operating these clear areas are found to be the defects in the stomach wall where there had been a penetration through the indurated ulcer area into the left lobe of the liver and into the pancreas.

In most cases the air inflation method requires only one picture to bring out the details of size, form, and position of the stomach. With the bis-

moth-meal method these points in the majority of cases can be determined only after a number of pictures have been taken with the patient in different positions. The air-inflation method, however, does not give any information in regard to the functional activity of the stomach, and for this the bismuth method will have to be used. In all of the cases that he reports the author was able by means of the air-inflation method to make positive diagnosis both of simple indurated ulcers and those that had perforated into the surrounding tissues.

VON TUBERGEN

Steinharter, A. Preliminary Note on the Experimental Production of Gastric Ulcers by the Intravenous Injection of Clumped Colon Bacilli. *Bailey M. & S. J.* 9, 3, 1911, 81.
By Serg. Gyrec. & Obst.

An emulsion of colon bacilli in the presence of free hydrogen ions the author states, is agglutinated from one to four hours when incubated at body temperature. Gastric juice of high acidity possesses this agglutinating power. With these facts as basis, such an emulsion, when injected into the ear vein of a rabbit, has been followed by the formation of gastric or duodenal ulcer within 24 hours.

The method of preparing the emulsion was three strains of colon bacilli in broth emulsion, are agglutinated with weak solution of active acid and hydrochloric acid 0.2 or 0.3 c. of this emulsion were injected into each of six rabbits, and in each an ulceration of the stomach or duodenum was afterwards found.

Many important questions, such as the method of action of the colon bacilli (whether it is mechanical or toxic) whether or not it has selective action on the stomach or whether other organisms will behave in the same way, remain to be treated in later communication promised by the author.

B. W. PARKER

Denver. Posterior Gastrojejunostomy in Acute Perforative Ulcer of the Stomach and Duodenum. *J. Am. M. Assn.* 1913, 10, 75.
By Farg, Gyrec. & Obst.

This paper emphasizes the great importance of early diagnosis of perforation of the stomach or duodenum and the imperative need of an immediate operation.

The diagnosis of an acute perforation is made mainly upon three things: first, the pain second, the rigidity and third, the history of previous indigestion of ulcer type. The pain is very intense and very sudden in appearance. There may have been premonitory pains of great severity but the pain of perforation is goaling and unbearable. It is abdominal, not pelvic, and usually in the mid-epigastrium, epigastrium or hypochondrium, although occasionally radiating to the iliac fossa or back.

General rigidity of the abdominal muscles sets in at once after perforation. The rigidity is of the

extrem type often called board-like. It is most marked in the upper abdomen. With the rigidity there is extreme tenderness, which is first located over the site of the perforation, but with the rapid spread of peritonitis the areas of peritoneum become sensitive to pressure and so the tenderness often becomes confusing. In perforated duodenal or gastric ulcers particularly the infection is apt to spread along the paracolic grooves into the right iliac fossa. When the patient is first seen a few hours after the perforation the tenderness may be as marked over the region of the appendix as elsewhere and so lead to a diagnosis of perforative appendicitis.

A history of previous stomach or intestinal trouble can usually be obtained, although many times the patient is in such agony that the history must be obtained from friends or relatives. Occasionally however no history pointing to the presence of an ulcer can be elicited. A history of prior abdominal trouble is of assistance in making the correct diagnosis, but the absence of such history does not by any means exclude the diagnosis of perforation.

These are the important symptoms and signs of perforated ulcer and the other signs and symptoms usually described are either of minor importance as regards diagnosis or they appear only at a time when it is already too late to help the patient. The temperature, pulse, and respiration are sometimes changed slightly early but not to any diagnostic degree. Distention, accumulation of fluid in the abdomen, and the subsidence of peristaltic movements are all signs which are of prognostic, but not of diagnostic, importance. No case should be allowed to wait until these signs appear as they foretell only too surely the approaching end. Free gas in the abdominal cavity and the obliteration of liver dullness also show that the case has almost certainly passed beyond the help of the surgeon. Leucocytosis is usually present early but may be slight.

In treatment of perforation of gastric or duodenal ulcer the important thing is to operate and to operate early. The majority of cases operated upon during the first twelve or eighteen hours recover while the cases that have gone over twenty-four hours usually succumb. The line of treatment adopted by the author was as follows: (1) closure of the ulcer; (2) plication of the duodenum to bilateral iliac ligament and fortification of this area by covering with the gastrohepatic and gastroduodenal omentum; (3) posterior no-loop gastrojejunostomy; (4) tube drainage of the pelvis through perineal stab.

The after-treatment consists in the sitting posture, continuous proctodysis, and the prohibition of everything by mouth until peristalsis has been re-established as evidenced by auscultation and by the passage of flatus. The stomach tube is used freely for vomiting, regurgitation, or gastric distention. The administration of food is attempted very cautiously beginning with albumin water. Nutrients are used but cleansing enemas are given the third day after operation. J. H. SMITH.

Truex, J. J. 93 Chir. 44. By Surg., Gynec. & Obst.

The author divides surgery of the stomach for cancer into three divisions.

The exploratory operation done to establish the diagnosis or to determine the operability of a palpable tumor. That this procedure is too infrequently used is obvious from the number of inoperable cases that come to surgeons. There is too often more reluctance on the part of the surgeon to do this operation and more on the part of the patient and his physician to have it done for suspected cancer than to prove a palpable cancer inoperable.

The first stage of pyloric obstruction is due not to the cancer *per se* but to the tumor plus the pericancerous inflammation. Under these circumstances, conservative treatment yields results immediately good but ultimately disastrous. The microscope, chemistry and the X-ray are all valuable in diagnosis, but the personal history more than any other factor must be depended upon mainly to furnish evidence for or against exploratory laparotomy.

The palliative procedures occupy but small place in surgery of the stomach for cancer. The author believes that the excision of large tumor mass plus gastro-enterostomy is preferable to a gastro-enterostomy alone as palliative procedure.

3. The radical operation, which consists of partial gastrectomy and gastro-enterostomy. Wide margins of healthy tissue should be included together with complete excision of the lymphatic zones draining the infected area. R. W. F. EVANS.

Thomson and Graham. Fibromatosis of the Stomach and Its Relationship to Ulcer. Edinb. M. J. 93, 17. By Surg. Gynec. & Obst.

Fibromatosis may be localized or diffuse, but it is the localized form which, from a clinical point of view is the more important to differentiate from cancer. This form nearly always commences in the vicinity of the pylorus and spreads from there towards the cardia, usually but not always, showing preference for the lesser curvature. The external appearance of the stomach shows marked changes: the normal area is flaccid and collapses readily whereas the affected portion is rigid and densely hard like gristle. The peritoneal surface is free from adhesions, is white pearly and smooth. The diseased mucosa is usually firm and unyielding, closely adherent to the submucosa. It presents a bilobed surface which tops abruptly at the pyloric ring but gradually merges into the normal towards the cardia. The submucosa is converted into a thick, solid, tough, white tissue, not so dense as a cheloid, but resembling the consistency of hard fibroma. The layer is made up of uniform fibrillated connective tissue with here and there collections of lymphocytes in the vicinity of the muscularis mucosae. The muscularis shows a marked hypertrophy of the circular fibers with characteristic segmentation, being divided into bundles by septa of white fibrous tissue or tissue with the fibrous tissue of

the submucosa. The serous and subserous coats are little altered as a rule.

The most striking fact in the pathogenesis of fibromatosis is the apparently invariable association with ulcer or ulceration of the mucosa. As regards the relation of fibromatosis to cancer they suggest that an ulcer is the primary lesion, which is followed by fibromatosis and that, finally, cancer originates at the edge of the ulcer. Clinically the features are those of ulcer. Hemorrhage was a prominent feature in only one case.

Operative treatment. Where diagnosis can be made and cancer excluded, the authors advise resection of the affected part. A reasonable alternative in weak patients is gastro-enterostomy and at the same time removing several glands from the lesser curvature. If these show the presence of cancer the resection should be carried out after a suitable interval for recuperation. If the disease does not lend itself to radical treatment, then relief of symptoms may be had by gastro-enterostomy or if impracticable, by jejunostomy. R. W. McNEE.

Janeway. The Relation of Gastrostomy to Inoperable Carcinoma of the Esophagus, with Description of New Method of Performing Gastrostomy. *J. Am. Med. Ass.*, 9, 3, 119, 95.
By Surg. Gynec. & Obst.

A plea is made by the author for the earlier performance of gastrostomy on cases of inoperable carcinoma of the esophagus before the patient has become emaciated from inanition. An early operation not only gives the patient a longer period of life but also relieves the cancer from the constant stretching and irritation caused by swallowing. The main objections usually raised to the performance of gastrostomy are the following: (1) the opening may leak; (2) the new fistula which leads to the stomach is permanently lined with granulation tissue and hence may cause some discharge; (3) there may be some irritation in the region of the skin; and (4) the annoyance of wearing a tube constantly.

The most serious of these objections is the possibility of leakage. This can well be prevented by following the procedure invented by Semm, which consists in invaginating a small cone of the stomach wall around a tube and then suturing the base of the cone to the parietal peritoneum. This forms a valve which prevents the outflow from the stomach.

The establishment of permanent fistula requires an epithelial lining for the fistulous tract. This is accomplished by a procedure described by the author. An incision is made parallel with the rectus fibres a short distance to the left of the median line and 3 or 4 cm. below the costal margin. The fibres of the rectus are not divided but are separated bluntly by the posterior sheath of the rectus cut through, and the peritoneal cavity opened. The anterior wall of the stomach is then pulled through the wound and an incision 3 to 4 cm. long made with perpendicular incision 1 cm. long at either end of the first incision. This forms a flap of stomach wall 3 cm. by 1 cm. and

by sewing the opposite edges of the opening together transversely to the direction in which the incision 3 cm. long was made, a hollow prolongation of stomach wall is formed, which is about 5 cm. long. This tubular projection may then be fastened by the abdominal incision and the outer end sutured to the opening in the skin. The rectus muscle acts like a sphincter and no leakage occurs under ordinary circumstances. J. H. SMITH.

Georg. The Positive Diagnosis of Duodenal Ulcer by Means of the Röntgen Ray. *Am. Quart. Abstr. Med.*, 9, 3, 17, 187.
By Surg., Gynec. & Obst.

To obtain the most valuable evidence of the presence of duodenal ulcer the actual deformity might though it may be, must be demonstrated as constant on series of radiographic plates. To date, the frequent failures here and abroad result from too great a dependence upon such data as can be observed with fluoroscope.

The author assumes that the observation of Germain, that the first portion of the duodenum has very constant shape and structure unless it is diseased, is correct. Also that duodenal ulcer which is producing symptoms, involves the muscularis early becomes somewhat callous, and produces a real defect in the duodenal outlines.

The caput duodeni is sometimes better filled in the standing position, sometimes in the prone position. Not infrequently, to make it quite visible plates must be made with the light directed laterally through the body from the left side, the patient lying standing. This is most often true in the steer-horn type of stomach or in special conditions in which the duodenum projects backward and is hidden behind the stomach. This method has added great deal to the accuracy of duodenal inferences as well as to the radiographical knowledge of the posterior wall of the stomach.

In conclusion the author is satisfied in having made minor incorrect inferences in only three of fifty-nine operated cases of duodenal ulcer, and major incorrect inferences in none. This showing he believes makes his results practically positive.

HOMER E. PORTER.

Bunting and Jones. Intestinal Obstruction in the Rabbit. *J. Exp. Med.*, 9, 3, xvib, 95.
By Surg. Gynec. & Obst.

In former paper the authors stated their belief that the early death in high intestinal obstruction is due to the absorption of toxic duodenal secretion. If closed loops be made of lengths of ileum and jejunum in a fasting animal, no secretion occurs into these loops, while the duodenal loop becomes distended with faintly straw-colored alkaline fluid.

The only difference between the upper and lower segment of the small intestine of the rabbit is the presence of Brunner's glands. It seems justifiable to conclude that the secretion found in the duodenal loop comes from these glands. J. F. CANNON.

De Quervain Errors of Diagnosis in Appendicitis
(Des erreurs de diagnostic dans l'appendicite) *Rev.
med. Suisse romande* 9 3 1904 53
By Journal de Chirurgie.

One of the greatest criticisms made of the radical operation for appendicitis is that there may have been an error in diagnosis. However the radical operation is the only method of lessening the mortality of the disease and out of 73 cases operated for appendicitis there were but ninety four in which there was no lesion in the appendix.

Ten times the error was account of perforation of gastric or duodenal ulcers which should be readily recognized from the symptoms of perforation extreme initial pain and general muscular rigidity.

Twice the error was due to intestinal perforation in the ileocecal region twice to intussusception once to acute pancreatitis, and once to cut occlusion of the mesenteric vessels. It must be differentiated from cecum mobile typhlitis typhlectomy Lane kind. Five errors are due to a pneumococcus peritonitis in children from four to ten. Liver abscess, pyemic non-appendicular abscesses, and intestinal worms, have also caused errors in three cases. cholecystitis, and in one renal lithiasis were mistaken for appendicitis. There are nine cases in which appendicitis was confused with acute salpingitis nine cases with tubal abortions and rupture of tubal pregnancies one, with torsion of the ovary and fourteen, with torsion or rupture of ovarian cysts.

In half of these cases the operation was as urgent as if it had been appendicitis. In fifth, the intervention, if not urgent, as justifiable and the best thing to do. In the rest the operation was unnecessary but rarely caused death. These facts are such that they urge the surgeon to operate without fear for appendicitis. P. VI. MATHIEU

Fölyá, J. Cases of Appendicitis, Cholelithiasis, and Pericholecystitis, Showing the Clinical Picture of Ulcer of the Stomach or Duodenum (Fälle von Appendicitis, Cholelithiasis und Pericholecystitis, welche das Symptomencomplex von Ulcus ventriculi und duodeni darbieten) *Budapest Med. Orvost. Hírlapja*, 9 3 1904 377

By Zentralblatt für ges. Chir. i. Grenzgeb.

The author reports seven cases in which the history of typical pains, hemoptysis the clinical symptoms, and the X-ray picture indicated a much or duodenal ulcer but on operation there was found either chronic appendicitis, dilatation of the gall-bladder cholelithiasis pericholecystitis, gall-stones. These cases show that in cases in which pain in the stomach has persisted for long time in spite of internal treatment, operation should be undertaken, for even if there is no ulcer some condition will certainly be found which will explain the pain and which can be relieved surgically. That diseases of the appendix and gall bladder may lead to superficial ulceration from which hemoptysis may arise even though it may not be pronounced enough to be demonstrable on operation. 3 That it is

possible that some of the pain observed after an operation for ulcer is caused by disease of the appendix, gall-bladder or other abdominal organs. P. VI. A.

Ducoux Hydro-Appendicitosis (De l'hydro-appendicite) *Rev. d'op. et de chir. abdom.*, 9 3 1904 143
By Journal de Chirurgie.

Hydro-appendicitosis is the name given by Jaboulay to the condition of the appendix which becomes suddenly and intermittently distended by the secretions of its mucosa. The symptoms are those of appendicitis.

Ducoux has collected eleven cases of this kind, two from Paris (reported by Petit and Walther) and nine from Lyons. Three of these were Jaboulay's.

In hydro-appendicitosis the appendix is turgid, swollen, and red and from 8 to 10 cm in length. It has been compared in appearance to penis, small intestine, and a banana, and when irregular to a mandarin or hydrocele. In some cases there may be one or two swellings resembling cysts. There are frequently adhesions fixing the appendix to the cecum or bending it toward the omentum, and the meso-appendix is frequently oedematous. The

cells are very thin and cure must be taken when separating adhesions to avoid rupturing them. The liquid from the appendix in one of Jaboulay's cases caused tuberculosis in a guinea pig. In one of Petit's cases drops of the liquid which fell into the wound produced a ulceration, apparently tuberculous, which was hard to cure. By microscopic examination Jaboulay found in one case giant cells in sections of the appendix. In several cases military tubercles were found in the cecum and intestine. Accordingly it seems logical to classify "hydro-appendicitosis" as an atrophic tuberculosis of the appendix accompanied by dropsy.

Clinically there are three forms of hydro-appendicitosis, i.e., a latent form, with digestive trouble form in which there is tumor, and form characterized by repeated attacks of appendicitis. The last is the most common. The form characterized by tumor must be differentiated from cancer and ileocecal tuberculosis.

The treatment advised is resection of the appendix. Special care should be taken to keep the fluid contents from coming in contact with the wound. The incision must be large. Jaboulay recommends a transverse incision beginning at the lower third of the incision of Jalegnier and extending toward the crural arch. The prognosis is grave, not so much on account of the lesions of the appendix as on account of tubercular lesions in the lungs that frequently accompany this disease. GEORGE LARRY

Sollier, R. Gastric Hyperacidity of Appendicular Origin (Sur la gastrite hyperacide d'origine appendiculaire) *Rev. op.* 9 3 1904, No.

By Journal de Chirurgie.

Moynihan in 91 was among the firsts to describe an appendicular dyspepsia. This disease occurs

most frequently between the seventh and fifteenth years. It has an insidious onset, rarely following an acute attack, and its symptoms are usually like those of gastric ulcer. There is gastric pain soon after meals, which is not radiating and which is frequently accompanied by acid vomiting and marked hyperchlorhydria. Tenderness to pressure is felt in the epigastric region but none elsewhere except when epigastric pain is caused by pressure at McBurney point. On operating a case of this kind Moynihan found the exterior of the stomach normal in appearance. He noted, however, intermittent spasmodic pyloric contractions. Soler in a similar case first performed gastro-enterotomy with no beneficial result. Appendectomy performed later however resulted in complete cure. The pendency followed typical attack of pendency with bicus formation and fecal concretions four months after the gastro-enterotomy was performed. Ten months later the patient had gained a kiloe and had not had any further gastric distress.

ANCAULE

Cargile. Grape Seeds in a Pelvic Abscess. *South M J* 9, 3, 330 By Surg. Gynec. & Obst.

The author reports the case of a year old boy who after having occasional attacks of what was called indigestion over a period of several years, developed a pelvic abscess. This was drained and 21 grape seeds expelled the pus. One seed was seen in the feces. An investigation in the library of the Surgeon General's office fails to reveal similar case. The nearest to it is one in which a small shot escaped through the appendix. Another interesting feature of this case was the absence of pain. The author states that he had sniffed the mother to see and that, while she could feel the contractions, both labors were absolutely painless. In no other respect was the mother abnormal.

C. H. D. W.

Cheever. D. Etiology and Significance of Pericolic Membranes. *J Am M Ass*, 9, 3, 123, 125 By Surg. Gynec. & Obst.

The etiology of pericolic membranes has not been settled beyond dispute. The author however considers the origin of these membranes to be of dual nature. On the one hand he places the membranes resulting from congenital malformations, and on the other hand, those which are due to peritoneal irritation. In support of his theory that many of these membranes have congenital origin he calls attention to the fact that the very nature of the thin diaphragmatic veil which constitutes the membrane man of the caecum could suggest that it is membrane of developmental rather than of inflammatory nature. In the study of these membranes in the fetus and in the new-born he did observe belting evidence in favor of the developmental theory in many of these cases. Membranes appearing in the fetus or the new-born could hardly come from peritoneal irritation or inflammation. Less

accept the unproved theory of foetal peritonitis. As to exactly what step of the development of the fetus is responsible for the formation of these membranes the author is not able to state. He is inclined to believe that they are formed during the descent and rotation of the caecum from beneath the liver.

Of what pathological significance are pericolic membranes. Future investigation will probably tell us just how much intestinal disturbance can be attributed to these abnormalities. At present there is marked difference of opinion among surgeons as to what train of symptoms they may produce. The present accepted treatment of the condition seems to be the division of the membranes by the thermocautery.

J. H. Senn.

White. B. Cancer of the Colon. *Brit M J* 19, 1, 17 By Surg. Gynec. & Obst.

Cancer of the colon is usually primary disease. Occasionally however the bowel becomes involved by extension of the disease from an adjacent viscus such as the stomach. Cancer of the colon is most common between the ages of 40 and 65. Two varieties of the disease require special description. One, the sclerosing type, is so frequent that it may be regarded as the typical form. Growing very slowly it leads to an annular constriction of the bowel which, if the patient lives long enough, will end in obstruction. The mesenteric glands are affected late. The second variety which occurs in minority of cases, is of the fungating type. There is extensive infiltration of the walls of the bowel and, in addition, fungating mass sprouts into the lumen of the bowel. There is no constriction of the bowel. It occurs more often in young people and is characterized by rapid growth, early dissemination, bloody stools and cachexia. There is no definite symptomatology and in the annular sclerotic type obstruction may be the first symptom. In obstruction from cancer of the colon dilatation precedes vomiting. Marked peristaltic movements of the colon are common. The

author reviews 26 private cases of colectomies for cancer. Fifteen of these came to him with acute or subacute obstruction and all were relieved by colectomy the growth being removed from to day later. Four patients died, two from pulmonary embolism, one from defective union of the bowels, and one from metastasis. Thirteen patients remain in apparent good health, eight of them after from 24 to 4 years. Five were operated on within the last 3 years. Colectomy should never be performed where intestinal obstruction is present. Patients beyond 70 years of age are poor risks. White advises colectomy or short circuiting for cases unsuitable for colectomy.

Under operative technique the author advises, first a thorough exploration of the abdominal cavity for evidence of metastasis before the operation is undertaken. Second, if the disease is too advanced, short-circuiting, or if this is not possible, colectomy. He takes up the method of uniting the bowel but says there is no one way for all cases. There are

few operations in which good technique counts for so much, and every step in the procedure should be carried out deliberately and with infinite care. Three cases are reported as typical of the disease.

M. S. HILGREN

A. bertin, C. and Beaujard E. Th Action of X Rays on Polyadenomas of the Intestine (Action des rayons X sur les polyadénomes de l'intestin) *Bull et mem Soc med d'hop de Par* 93, No. 1

By Journal de Chirurgie

Aubertin and Beaujard had an opportunity to compare two biopsies made eighteen months apart in the case of a 34 years old suffering with polyadenomatosis of the large intestine. The first specimen was obtained after a few treatments by radiotherapy the second after 5 treatments, when the symptoms were diminished and rectoscopy showed diminution of the size and number of the polyps. The authors made an histological study of the two specimens and believed that they could attribute to the action of the X rays decrease in the size of the glandular crypts, the disappearance of the cyst like formations, suppression of the cells filled with mucus, and restriction in the amount of stroma. These changes they interpreted as an histological amelioration of the condition.

M. URBAN CHIRVASEO

Kleinböck, R. Th X Ray Diagnosis of Colitis Ulcerosa (Zur Röntgendiagnose der Colitis ulcerosa) *Fortschr d Geb d Röntgenstr* 93, 22, 3

By Zentralbl f d ges Chir. 1 Grossegeb

According to Stierlin, colitis ulcerosa shows the following characteristics in the X ray picture. The diseased portion of the bowel is free from large quantities of barium and shows only few longitudinal barium shadow-lines. The border lines of the intestine are parallel, without marks of sacculi, and enclose between them very clear areas which has an increased gas content. This picture is constant. Stierlin explains the condition as being hypersthenia of the quickly emptying colon with residue remaining upon the ulcers of the intestinal wall in diverticuli or long-drawn out lines. Schwartz and Novitsinsky report similar findings and give similar explanations. Kleinböck reports in detail three cases of colitis ulcerosa, two with tuberculosis and one with dysentery. His conclusions are as follows.

There are two distinct types. The picture of Type I shows narrow bowel almost without sacculi, and with short very shadow lines which are woven into veils or clouds. The bowel often shows spastic contraction. It is of an inflated club shape with a dark margin. In this form the intestinal wall is still mobile. The picture of Type II is that of broad cylinder of an even thickness, without sacculi and with narrowly dentated outlines, a form characterized by rigid infiltration of the walls and the formation of ulcers. The picture of the empty bowel is similar to that of normal digestion. With

the ulcerative process, insufficiency of the Bauhin's valve, adhesions, kinkings, and stenosis are frequent.

HORMANN

Beach, W M. A New Operation for Hemorrhoids. *Pittsburgh M J* 93, 4

By Surg. Gynec. & Obst.

The author reviews the anatomy of the rectum and anal canal. He protests against the general use of the word orifice as applied to the anus and insists that the words anal canal should be substituted. The blood supply of the anal canal is derived largely from the superior hemorrhoidal artery continuation of the inferior mesenteric artery. The superior hemorrhoidal descends from the rectum to the superior part of the anal canal where it terminates in plexus of veins. These veins are, very thin walled and are covered only by mucosa. Therefore they are very easily distended by any obstruction to the outflow of the blood.

The author objects to the operations commonly used in the radical treatment of hemorrhoids. His objections are, that the operation is either too destructive of the mucous membrane and the nerve endings enclosed therein, or it is not radical enough to effect permanent cure. He criticizes especially the Whitehead operation because it removes such a large area of epithelium that contains sensitive nerve endings having special function to perform in the control of the sphincter anal. He criticizes the ligature method because of the sloughing which occurs beyond the constriction and the attending pain. He claims also that at times by the ligature method only the overlying mucosa and not the whole pile is included and as a result the condition tends to recur. He censures the use of the clamp and cautery because of the pain and suffering which he claims follow in many cases and may extend over many weeks.

The operation that Beach recommends is as follows. The patient is anesthetized either generally or locally and placed in the lithotomy position. The tissues of each quadrant are then seized with the forceps and by traction are brought into view. A single-pronged tenaculum is passed through the diseased tissues and the entire mass is removed with curved scissors. Any distended veins that have been left are then removed with curette. The incised mucosal edges will usually approximate. Ragged edges are trimmed with a T oblique post-operative hemorrhage, gauze-covered tube one inch in diameter is inserted through the operative speculum. This acts not only as a hemostatic but also as a splint.

J. H. SARTON

Smith, A Description of the Enterostostic Worms *Surg. Gynec. & Obst.*, 93, 22, 71

By Surg., Gynec. & Obst.

Visceral prolapse in woman is always attended by other closely associated structural abnormalities. On this basis, these women may be divided into three groups. In the one are placed those who in early life were well nourished, more or less sturdy of form

most frequently between the seventh and fifteenth years. It has a insidious onset, rarely following acute attack, and its symptoms are usually like those of gastric ulcer. There is gastric pain soon after meals, which is not radiating, and which is frequently accompanied by bad vomiting and marked hyperchlorhydria. Tenderness and pressure is felt in the epigastric region but none elsewhere except when epigastric pain is caused by pressure at McBurney point. On operating on case of this kind Bloyinba found the exterior of the stomach normal in appearance. He noted, however, intermittent spasmodic pyloric contractions. Sotteri in a similar case first performed a gastro-enterostomy with no beneficial result. Appendectomy performed later however resulted in a complete cure. The appendectomy followed typical attack of penderitis with feces formation and fecal concretions four months after the gastro-enterostomy was performed. Two months later the patient had gained kilos and had not had any further gastric distress.

AMERICA

Cargile. Grape Seeds in Pelvic Abscess. South Af J. 9 3 vi, 330.
By Surg., Gynec. & Obst.

The author reports the case of a year old boy who after having occasional attacks of what was called indigestion over period of several years, developed pelvic abscess. This was drained and 3 grape seeds escaped in the pus. One seed was seen in the feces. An investigation in the library of the Surgeon-General office fails to reveal similar case. The nearest to it is one in which small abscess escaped through the appendix. Another interesting feature of this case was the absence of pain. The author states that he had confined the mother twice and that, while she could feel the contractions, both labors were absolutely painless. In no other respect was the mother abnormal.

C H D via

Cheever D. Etiology and Significance of Pericolic Membranes. J Am Med Ass. 9 3, 141, 144.
By Surg. Gynec. & Obst.

The etiology of pericolic membranes has not been settled beyond dispute. The author however considers the origin of these membranes to be of dual nature. On the one hand he places the membranes resulting from congenital malformations, and on the other hand, those which are due to peritoneal irritation. In support of his theory that many of these membranes have congenital origin he calls attention to the fact that the very nature of the thin diaphragmatic wall which constitutes the membrane in many of the cases would suggest that it is membrane of developmental rather than of inflammatory nature. Also the study of these membranes in the fetus and in the new-born has added overwhelming evidence in favor of the developmental theory in many of these cases. Membranes appearing in the fetus or the new-born could hardly come from peritoneal irritation or inflammation unless we

accept the unproved theory of fetal peritonitis. As to exactly what step of the development of the pericolic is responsible for the formation of these membranes the author is not able to state. He is inclined to believe that they are formed during the descent and rotation of the cecum from beneath the liver.

Of what pathological significance are pericolic membranes. Future investigation will probably tell us just how much intestinal disturbance can be attributed to these abnormalities. At present there is a marked difference of opinion among surgeons as to what train of symptoms they may produce. The present accepted treatment of the condition seems to be the division of the membranes by the thermocautery.

J H. Smith.

White, S. Cancer of the Colon. Brit Med J. 1913, 4, 57.
By Surg. Gynec. & Obst.

Cancer of the colon is usually primary disease. Occasionally however the bowel becomes involved by extension of the disease from an adjacent viscus such as the stomach. Cancer of the colon is most common between the ages of 4 and 65. The varieties of the disease require a special description. One, the sclerosing type, is so frequent that it may be regarded as the typical form. Growing very slowly, it leads to an annular constriction of the bowel which, if the patient lives long enough, will end in obstruction. The mesenteric glands are affected late. The second variety which occurs in minority of cases, is the fungating type. There is extensive infiltration of the walls of the bowel and, in addition, fungating mass sprouts into the lumen of the bowel.

There is no constriction of the bowel. It occurs more often in young people and is characterized by rapid growth, early dissemination, bloody stools and cachexia. There is no definite symptomatology and in the annular sclerotic type obstruction may be the first symptom. In obstruction from cancer of the colon distention precedes vomiting. Marked peristaltic movements of the colon are common. The

author reviews 36 private cases of colectomies for cancer. Fifteen of these came to him with acute or subacute obstruction and all were relieved by colectomy the growth being removed from the days later. Four patients died, two from pulmonary embolism, one from defective union of the bowels, and one from metastasis. Thirteen patients remain in apparent good health, eight of them after from 14 to 4 years. Five were operated on within the last 3 years. Colectomy should ever be performed where intestinal obstruction is present. Patients beyond 7 years of age are poor risks. White advises colectomy or short circuiting for cases unsuitable for colectomy.

Under operative technique the author advises, first, thorough exploration of the abdominal cavity for evidence of metastasis before the operation is undertaken. Second, if the disease is too advanced, short-circuiting, or if this is not possible, colectomy. He takes up the method of waiting the bowel but says there is no one way for all cases. There are

Joint tuberculosis. Too much reliance must not be placed on experimental work. Infection of a tubercle bacillus culture into joint cavity causes a reversed pathological course. Tuberculosis attacks the epiphysis and not the shaft because of its marked affinity for lymphoid tissue.

The tuberculous process is limited by the cartilage, the periosteum, and the shaft. If it goes beyond the cartilage it does so by extending around it or penetrating through it after having caused degeneration of that tissue by cutting off its nutrition. When the synovium is infected the original tubercle is found in its lymphoid tissue. Apparent enlargement of the joint is due to atrophy of the muscle.

The symptoms include pain, stiffness, swelling, limitation of motion, change in attitude, deformity, disturbance of function, local rise in temperature, bone involvement, muscular atrophy, and muscular atrophy. Purely synovial cases are distinctly mild and may elude diagnosis. Abscesses are very frequently formed.

Complications. Phthisis, adenitis, meningitis in children and amyloid degeneration after prolonged suppuration.

The prognosis for life is good for children. Functional results vary with age. Painless motion in an adult tuberculous joint is an indecent dream. Children may recover with good function.

Diagnosis. Tuberculosis may be differentiated from other diseases in Type I by its slow, steady course and unarticular nature from those of Type II by the presence of active inflammation and absence of exostoses.

Local treatment. (1) Deprive the joint of function. (2) Avoid secondary infection. In general, conservative treatment in children, radical treatment in the adult. Conservative treatment should prevent deformity and deprive the joint of function. It is essential that treatment by apparatus be continued without interruption.

Tuberculin treatment is not of value. Bier hyperæmic treatment is worthless. Injection of substances into the joint may be harmful.

Radical treatment consists in the destruction of function. Finger and toe joints should be treated by amputation. In the spine where resection is impracticable, Albee bone spilt should be applied.

Chronic gonorrheal arthritis. The absence of bony outgrowths (usually) the appearance of the X-ray plate of the joint itself and the history place this disease in Type I. Treatment. Set the genito-urinary tract in order mobilize the joint, under anæsthetic if necessary.

Joint syphilis. There are two forms of joint syphilis, one of which corresponds to the synovial form of tuberculosis and the other to the osseous type. Another form more frequent, is proliferative inflammation of the marrow and periosteum of the bone end. Mobilization is useless. Mercury has been our sheet anchor. Some cases yield to one or two doses of salvarsan after course of mercury.

The etiology of other diseases of Type I is uncertain. It would be wise to study the bone marrow the active tissue, in seeking the cause of affection of the passive tissue. W. A. CLARK.

Bankart, A. S. B. The Pathology and Treatment of Hallux Valgus. *Med Press & Circ.*, 93 xvi, 33. By Surg., Gynec. & Obst.

The part played by shoes in the etiology of hallux valgus has been exaggerated. In the majority of cases the deformity is due to flat foot and results from tension on the tendons of the great toe caused by the elongation of the skeleton of the foot. The deviation is outward because of the predominance of muscle attachments on the outer side of the toe.

Treatment. The entire head of the metatarsal bone should not be resected, as such resection destroys the anterior support of the arch. Instead, the tendons of the extensor and flexor longus hallucis should be divided, the prominent part of the bone chiseled away the toe forcibly abducted, and the capsule sewed back to the head of the metatarsal bone. Treatment for the accompanying flat-foot must also be carried out. W. A. CLARK.

Schwartz, A. The Etiology of the Burnt Skin (Zur Ätiologie der Brandstellen) *Wien med Wochenschr.* 93 April 854.

By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

Inflammation of the burn is different from that due to traumatism alone. Infections and nutritional disturbances due to diseases of metabolism also are primary or secondary causes of the pathological changes. After an attack of angina or tonsillitis the burn of the different joints are frequently painful to pressure. This condition gradually improves with the improvement in the primary disease. Micro-organisms may enter a burn with the blood stream and remain there latent even after the acute infection has ceased, and these, after a second infection or trauma may lead to atrophy or shivering of the burn. A predisposition to rheumatism or gout, gonorrhea, etc., may also be the cause of the disease. Accurate knowledge of the etiological factors as well as of the anatomical location of the individual burn is important for if the affection is recognized early errors of treatment will be avoided and stiffening of the joints prevented. Local applications of mud, or better hot air treatment, energetic massage and early mechanotherapy usually render good results.

DE ARVA.

Fenwick, W. S. The Conservative Treatment of Tuberculosis of Joints. *Brit. M. J.* 93, 800. By Surg., Gynec. & Obst.

Fenwick admits the advisability of radical operation in certain adults. Considering some of the dangers of the radical operative procedure in children he believes that there is the danger of general tuberculosis and tuberculous meningitis. He quotes

the statistics of H. J. Stiles emphasize this, and say that his radical operations may be usually performed in the more severe cases, he still feels that even better results could be obtained by the conservative treatment of children in the more light cases. The radical operation is objected to because it causes considerable shortening. Under treatment Tenckland uses the use of cod-liver oil and phosphorus and proper feeding, which is very essential in the last cases at Queen's Hospital, for the children receive it from the rounded districts of London. The ordinary methods are employed to reduce deformity and fixation is established by splints. Periodic examination by X-ray is resorted to upon Bier hyperemia is employed routinely. Lodoform injections are used on the more resistant cases. Abscesses are tapped and infected lodoform emulsion is used resulting in this line of treatment is operated on and arthrectomy or excision of the bone. The author states that he has never amputated children. He is strong advocate of the use of tetracycline and divides it as preparatory to operating on any case of tetracycline. He administers tetracycline either hypodermically or by mouth.

M. S. Henderson.

Elh, H. and Marbach, M. Gangrene of the Extremities and Its Treatment (Über Gangrän der Extremitäten und ihre Behandlung). *Blatt für Chirurgie*, 1931, 55.

By Zastrow, L. G. and Chis, I. Grougeb.

During the last five years eighty-one cases of gangrene of the extremities are treated in von Lischberg's clinic. Of these one is caused by electric current, by embolism, by freezing, three by laceration of the popliteal artery, forty-four by arteriosclerosis, and fifteen by diabetes. The indications for amputation are as follows: 1. In acute processes necrotic earlier operation proceed in the treatment of all forms of gangrene which are not used by diffuse or progressive diseases of the arterial system should be expected until there is demarcation such as in cases of frostbite, burns, freezing, etc., in the juvenile arteriosclerosis, if the general conditions be favorable the phalanges should be flowed separately spontaneously. 2. Amputations in the area of the foot are not warranted because they offer but small chance for permanent cure. In cases where there is an insufficient demarcation progressive process, infection complications or unbearable pains, only amputation can be considered. 3. In all gangrene the operation should be performed at the thigh. 4. In juvenile gangrene good results may be obtained by amputating the lower leg, provided that the extension of the process offers no contra-indication, the pulse is distinctly palpable at least in the popliteal, and the amputated stump bleeds freely during the operation. The only operation on the lower extremities of diabetic patients that is arranged is amputation of the lower

FRACTURES AND DISLOCATIONS

Binney. Report of Eighteen Cases of Separation of the Lower Femoral Epiphysis at the Boston City Hospital. *Boston M. & S. J.*, 1931, 107, 49.

By Sarg, Gynec. & Obst.

The author first takes up briefly the history of the treatment of separation of the femoral epiphysis, contrasting the former mortality and poor results with the present day favorable outcome.

The etiology as quoted from Scudder, Stimson, and Cotton is hyperextension. The pathology varies with the nature of the injury. Scudder stating that it is compound in 50 per cent. The lesion may be a simple loosening of the epiphysis with slight displacement and there may be great shifting of the fragment forward and upward in front of the lower end of the shaft with extension tearing of the periosteum. The popliteal vessels and nerves may be tightly drawn over the end of the diaphysis like the strings over the bridge of a violin, causing rupture from arterial thrombosis. The nerve injury is usually the lateral popliteal, number of cases being followed by some degree of toe-drop. A small the edge of the diaphysis presents in the wound.

The author next discusses the mechanical factors affecting displacement depending upon the attachment of the gastrocnemius quadriceps and popliteus muscles.

Symptoms and diagnosis. Any case of injury to the knee in a patient below ten years of age is suggestive of epiphyseal separation. The classical factors of these lesions are marked prominence in the region of the patella, the transverse depression across the thigh just above the patella and the bony prominence in the popliteal space. Mobility just above the knee joint and a soft crepitus, if present are suggestive. Pulsion of the vessels of the leg may be waiting with the accompanying pallor and swelling of the extremity. With any considerable amount of displacement there will be shortening of the limb.

The diagnosis from dislocations of the knee is usually easy. The fracture of the lower end of the femur the bony crepitus and character of the deformity should give evidence by which the differentiation can be made. In many cases, however the X-ray is the only method by which diagnosis can be made.

The author next lays great stress on the X-ray examination both before and after reduction because of the marked tendency of the lower fragments to assume malposition.

The danger of some degree of arrest in growth of bone must always be considered. The introduction of a foreign body such as nail, screw or wire, seems to increase the danger of disturbance of growth. Immediate reduction and placing of the divided cartilage in position favorable for growth is of great importance. Also immediate treatment is indicated to relieve pressure on the nerves and vessels.

In simple separation without extensive detachment of the soft parts, fixation in the extended or slightly flexed position is sufficient. In the majority of cases an anæsthetic is necessary. A *X-ray* examination must be made to insure the maintenance of the correct position. Fixation in acute flexion sometimes helps when other methods fail. When the reduction can not be accomplished by these methods, immediate operation should be done. With evidence of injury to the vessels acute flexion should not be employed, on account of the obstruction to the circulation.

Compound fractures are treated by thoroughly cleansing the wound, the displacement having been reduced, fixation of the fragment must be secured. Excision of the joint is probably never necessary when easy reduction is attained.

Conclusions. Owing to danger of subsequent interference with growth, absolute reduction and fixation at the earliest moment is of great importance.

1. Early and repeated *X-rays* are necessary to control the completeness and permanency of the reduction.

2. In simple cases where immobilization in flexion fails to hold the fragment in correct position from the start, open reduction with the use of small nail or bone-plate is indicated.

3. In compound separation the same means of positive fixation is recommended.

4. The foreign body should be removed as soon after union has begun in order to avoid interference with growth. This should be done not later than the third week.

FRANKLIN G. DYER.

Jones, R., and Smith, S. A. Rupture of the Crucial Ligaments of the Knee and Fractures of the Spine of the Tibia. *Brit. J. Surg.* 9, 3, 1, 70.

By Surg. Gynec. & Obst.

The *X-ray* has shown that fracture of the spine of the tibia, often associated with rupture of one or the other of the crucial ligaments, is much more common than is generally supposed.

An investigation by the authors has shown that rupture of one or of both of the crucial ligaments occurs frequently in dislocation of the knee joint.

The authors quote Hogarth's principle paper published in 1907 as the first correct treatment of rupture of the crucial ligaments with violence of the spine of the tibia. They then describe the anatomy of the articular surface of the knee joint in detail, emphasizing the following facts:

(1) That the anterior crucial ligament is tense when the knee is fully extended and prevents the tibia from being displaced towards the femur.

(2) That the posterior crucial ligament is tense in complete flexion and prevents the tibia from being displaced backwards on the femur.

(3) That both ligaments check inward rotation of the tibia.

Hence if after injury to the knee, the tibia can be displaced backwards and forwards or rotated

inwards in the extended position injury of one or both crucial ligaments may be diagnosed. The most constant sign of fracture of the spine of the tibia is an obstruction to full extension.

FRANKLIN G. DYER.

SURGERY OF THE BONES, JOINTS, ETC.

Gask, G. E.: Autoplastic Graft of Fibula Intermittent after Resection for Chondrosarcoma, with Observations on Bone-grafting. *Brit. J. Surg.* 9, 3, 1, 49.

By Surg. Gynec. & Obst.

The author first gives briefly a review of the various methods of grafting bone and other tissues that have been in use during the last twenty-five years. He then reports a case of tumor of the humerus, which necessitated the removal of a portion of the shaft three inches long and the implantation of a portion of the fibula from the same patient. The union was good and resulted in complete use of the arm. Measurements showed that the humerus after the operation was three-eighths of an inch shorter and the circumference of the limb one-quarter of an inch less than normal. The loss in the fibula was not perceptible. The patient can walk as well as ever and is not weak on the operated side.

Technique. The portion of the humerus affected was removed, together with its periosteum, and the graft of the fibula was inserted with its periosteum intact. Nails were drilled into the graft. All muscular and tendinous attachments of the fibula were carefully dissected off. The bones were not secured in position by any foreign body such as a screw, peg, or plate.

Conclusions. (1) An autograft of bone under favorable conditions (growth of the individual is a favorable factor) will live and grow. It will certainly grow in thickness, though whether it will grow in length and at the same pace as the corresponding bone of the opposite arm, remains to be proved.

(2) The periosteum of the graft is of service to the bone, both as limiting membrane and as an active factor in the deposition of new bone.

(3) There is evidence to show that bone will grow without its periosteum and that even marrow alone will survive and deposit new bone. However, until we know more, it is better when possible to employ bone that is covered with its periosteum.

(4) Transplantation of the bone from an animal to man, and the use of bone from dead bodies, is merely in the experimental stage.

FRANKLIN G. DYER.

Klopper, L.: Free Transplantation of Fat into Bone Sinuses (Oberfreie Fetttransplantation in Knochenhöhlen). *Beitr. z. klin. Chir.* 9, 3, 1, 499.

By Zentralbl. f. d. ges. Chir. u. L. Grenzgeb.

The clinical experience in seven cases was very encouraging, and shows that filling the cavity with living tissue is superior to any method in use at present. The procedure is worthy of recommendation for aseptically as well as infected cases.

REMY.

König. Successful Plastic Operation on the Elbow-Joint by Means of Inplantation of an Ivory Prostheses (*Erfolgreiche Gelenkplastik am Ellenbogen durch Implantation einer Elfenbeinprothese*). *München. med. W. Anz.* 93, 12, 16.
By Zentralbl. f. d. ges. Chir. 1 Grossebr.

On the strength of successfully treated case of ivory transplantation at the elbow joint König calls attention to the possibility of utilizing ivory in plastic operations on bones, and particularly emphasizes the simplicity of the procedure.

The patient a healthy girl, had spindle-cell sarcoma of the olecranon condyle of the humerus. At the operation almost the entire distal portion of the humerus was removed only the capitulum and humeri remained. Into the resulting defect an extensory built previously prepared as inserted and held by two ivory pegs. A few weeks later plastic operation on the muscles became necessary. The result as good. The patient has had no recurrence in over year. The joint movable over more than one half of right arm and firm every respect. Extension is possible 135 degrees. Flexion 135 and rotation is complete. Von Tarnow.

Von Saar G. F. and Schwamberger R. The Ulnar Longitudinal Incision for Operation in the Region of the Volar Surface of the Wrist Joint and of the Middle of the IIa 2 (Der ulnare Längsschnitt eine Schnittführung für Operationen im Bereich der Volarfläche des Handgelenks und der Hohlhand). *Zentralbl. f. Chir.* 93, 12, 103. By Zentralbl. f. d. ges. Chir. 1 Grossebr.

In order to avoid unnecessary secondary injuries and to permit a good exposure of the operative field the authors have designed incision in the region of the volar surface of the wrist joint which they illustrate with drawings. The incision is made in the middle of the space between the flexor carpi ulnaris and the palmaris longus in such direction that it strikes the narrowest point of the anterior annular ligament. Hae.

Osgood. The End Results of Excision of the Knee for Tuberculosis with and without the Use of Bone Plates. *Boston M. & S. J.* 93, 111, 1.
By Surg. Gyroc & Ober.

The author first discusses the various methods of excision of the knee joint with their modifications and outlines the method which he advocates as follows. A 10- to 14-day preparation is given to the knee joint which has preferably been previously fixed in plaster for at least one month. The field is prepared by benzene-iodine skin preparation and an Esmarch bandage is applied. A U-shaped incision is made extending from the lower femoral condyle downward across the patellar tendon as high above the tubercle and upward to above the outer femoral condyle. Before the skin is cut through, three U-shaped scratches are made one to the lower half of the incision and one on either side to facilitate accurate skin reposition. The incision is then carried down to the bone dividing the patellar

tendon. The edges of the wound are swabbed with tincture of iodine. The proximal end of the patellar tendon is secured with double hooks, and the flap containing skin, fat, patella, diseased tissue and upper cul-de-sac is quickly dissected back the knee being gently flexed. Much of the tuberculous tissue is removed as the lower end of the femur and upper end of the tibia are isolated. A quick dissection of the upper cul-de-sac is made.

Estimating the desired angle of fixation, the lower end of the femur is secured with flat saw just above the diseased tissue. The upper end of the tibia is next secured and quick dissection of the tissue between the posterior capsule is made. The patella is removed, or its under surface is secured off.

It has been the custom for the last four years, in the absence of union or of mixed infection, to fix the ends of the bone by means of malleable iron plates, or aluminum wire clamps one on either side and in the middle. The patellar tendon is then sutured, the skin flap is replaced, and the leg put up in plaster of Paris.

Fourteen simple excisions had second operation for re-excision. These cases are secondarily infected. Four had sinuses before the operation, and nine after. Persistent several months after the operation in six cases. Eventual union occurred in 14. The time of union was 1 month or less in 13, three months or more in seven there is no record of eventual union in five.

Comparing these cases with those in which plates or lamps are used, none came to operation for re-excision. Clear amputation as done outside the hospital. The had sinuses before operation, and five after. Pain persisted several months only in the amputated case. Eventual union occurred in thirteen. The time of permanent firm union was one month or less in six cases, 1 month or less in four three months or more in three.

Conclusion. Comparative statistics of this small series seem to show that the holding of the bony approximated bone ends firmly together has decided advantages. Post operative pain is less early union is secured the only disadvantage is the occasional removal of the plate. A table of statistics is appended.
F. Lawrence G. Dyer.

Schepelmann, K. Free Transplantation of Pericardium (Eine Pericardialtransplantation). *Arch. f. Klin. Chir.* 19, 3, 51, 409.
By Zentralbl. f. d. ges. Chir. 1 Grossebr.

In series of earlier experiments the author attempted by transplantation to repair defect of the trachea with pericardium found around piece of glass tubing. Recently he has investigated the conditions which determine whether transplanted pericardium will form new bone. He gives the other investigators that under favorable conditions it is possible in all instances to obtain pericardial bone formation in transplanted pericardium. Success is assured more often, however, when the thorax in which the transplant is placed are very vascular and

parenchymatous. The results are so uncertain, however, that it is doubtful whether the procedure will ever be of much practical value. The conditions which determine success to a considerable extent are: (1) autoplasty in preference to homoplasty; (2) the age of the patient; (3) the vascularity of the area; (4) to which the periosteum has been transplanted; (5) the integrity of the cells; (6) the permanent union between the underlying layers and the periosteal membrane; and (7) the immediate transplantation of the periosteum, after its removal, into its new bed. The influence of functional stimulus on the formation of bone in periosteal transplants has yet to be determined by further investigations. HALLER.

Petrashewski. A Case of Free Transplantation of Half Joint (Ein Fall von freier Transplantation eines halben Gelenks). *Verhandl. d. 10. Ver. d. Ärzte d. Stadt Obuchow-Krasnok.* S. Petersburg 93, xiv, 4.

By Zentralbl. f. d. ges. Chir. Göttingen.

The author removed the entire fifth metacarpal bone for sarcoma. He replaced the bone with the fifth metatarsal bone, which was sutured to its base. The joint end (distal end) was placed into the first phalangeal joint, and the other end was placed against the os hamatum. Primary union resulted. The function of the newly formed joint is identical with the sound joint on the other hand. The defect of the foot caused no disturbance.

O. von SCHILLING.

ORTHOPEDICS IN GENERAL

Young, J. K. Practical Progress in Orthopedic Surgery. *Del. St. M. J.* 93, iv. By Surg. Gynec. & Obst.

The scope of orthopedic surgery includes deformities dependent upon (1) lesions of the bone; (2) lesions of the cerebro-spinal system; (3) impaired nutrition; (4) disturbances of development; and (5) traumatism.

Arthritis deformans. Formerly called rheumatism. From 50 to 80 per cent of the cases are females. The etiology includes trauma, neurotic conditions, pathogenic bacteria, and toxæmia. Still disease in children is similar but includes more constitutional symptoms.

Serum therapy. The most suitable cases of bacterial treatment are those showing symptoms of toxic absorption but no true septicæmia.

Psoas incision. Early operation is advised for mixed infection. The incision is made two and one-half inches from the spinous process, midway between the last rib and the crest of the ilium.

Lateral curvature. The most recent and prominent advances in the treatment of lateral curvature is the Abbott method of correction which consists in placing the patient in a specially constructed frame, and by means of canvas bands, twisting him into corrected position. A heavy plaster cast is then

applied and padding is used to force the body to the concave side. The treatment covers a period of from six to eight weeks.

Infantile spinal palsy. The greatest advance is in tendon transplantation. Most orthopedic surgeons prefer peroneal implantation.

Sacro-iliac displacement. Goldthwaite's work has revealed frequent ankylosis between the last lumbar vertebra and the sacro-iliac articulation. The displacement may be of the traumatic or of the static variety.

The static variety is composed largely of the neurotic and the uterine types. The symptomatology includes pain, limitation of motion, abnormal mobility and changes in attitude.

Cerebral palsy. Tendon lengthening and transplantation are of great value, but mental training is also of much importance.

Torticollis. The best age for operation is between six and twelve. The sterno-cleido-mastoid should be divided at the clavicle and the head fixed in an over-corrected position for three weeks.

W. A. CLARK.

Washburne, C. L. A Study of Congenital Dislocation of the Hip with Report of 81 Cases. *Physios. & Surg.* 93, xiv, 206.

By Surg. Gynec. & Obst.

Congenital dislocation of the hip was recognized by Hippocrates. Pravaz in 1838 was able to reduce the deformity but could not fixate to prevent recurrence. Lorenz in 1902 popularized the bloodless method. Etiological theories: (1) anomaly in development; (2) intra-uterine pressure. The latter is the more attractive theory. The position of flexion and adduction assumed by the fetal legs is the position in which the minimum areas of joint surfaces are in contact and which, if prolonged and under pressure, is most favorable to permanent displacement of the head out of the acetabulum. The greater frequency of congenital dislocation of the hip in females is probably due to the fact that in the wider pelvis the acetabulum is in a more posterior-lateral position. The author reports six cases and concludes from his experience that as a rule, adductor tenotomy is bad practice, that the wedge fulcrum is a dangerous instrument, that the most favorable time for reduction is between the ages of three and ten, and that in patients over ten years open operation is advisable.

W. A. CLARK.

Carr, W. P. An Operation for Flat Foot. *Am. J. Surg.* 93, xiv, 270. By Surg. Gynec. & Obst.

In reporting a case of traumatic flat foot cured by an unusual operation, Carr says:

Sawing through the os calcis, between the ankle joint and the attachment of the tend. chillis, slipping the max. portion of the bone down and three-fourths of an inch, and nailing it there is operation not difficult nor dangerous.

This relatively simple procedure was carried out by Carr on an electric table 37 years of age. The saw

ing as easily accomplished with modified Wyeth saw. The wounds healed promptly and the patient seeks the patient is able to walk better than before the operation. If his condition will improve. The

author recommends this procedure in cases of flat foot caused by injury and those which are not improved by the ordinary methods of treatment.

PATE P. SMITH

SURGERY OF THE SPINAL COLUMN AND CORD

Kleinberg, S. Abbott Treatment of Rotary Lateral Curvature of the Spine. *Journal of the American Medical Association*, 1914, 13, 135. By Surg. C. W. Abbott.

The Abbott method of treating rotary lateral curvature of the spine depends on the theory that the spine is influenced in its motions; the greatest degree being related to the spine in the flexed position. Hence the patient placed for treatment in a hammock suspended in a rectilinear frame. The frame has several bars on which the patient is hung. The bars are arranged so that the shoulder and hip girdle are fixed and correction is obtained by the hands, made preferential of the hands, which grow in the chest and attached to the side opposite the deformity, such manner that one hand pulls in and the other back and thus tends to correct rotation and lateral deviation. A plaster of Paris jacket is then applied and four inches wide very large incision over the coracoid behind one of the sternum over a little outside of the deformity and the ribs on the side of the deformity. Thick felt is used for correction padding. The pads are inserted through the anterior incision to correct the rotation and through the posterior incision on the side of the deformity to correct the deviation. They are inserted often the patient is obese and general condition will permit and then the maximum correction is particularly marked has been obtained. New jacket is applied. The careers of the Abbott jacket suffer times great deal of action, emphysema, dyspnea and asthma. Tachypnea, prostration and other evidences of shock must be guarded against.

Perhaps the best method of judging the correction has been obtained is the use of the X-ray the patient being kept between the patient is outside of the plaster jacket. The one area are treated in this manner. (How it is up because of the incision causes and discomfort. Three cases have been high cervical deformities, one up because no improvement had been obtained. (The rest four were very corrected and the remainder improved in degrees.)

In conclusion the author states that the Abbott method is one of the best cases can be corrected by especially the milder ones but the correction is so slow that the treatment must be prolonged.

McGill, A. Ankylosis of the Spine. *Journal of the American Medical Association*, 1914, 13, 135. By Surg. C. W. Abbott.

There are three varieties of spinal ankylosis. The first is due to inflammatory new bone (spondylitis

deformans). It may be caused by pyogenic bacteria or by trauma. The ossification is beaded along the ligament and thicker than the discs than the bodies. The patient are almost all in past middle life. The second variety is bony metamorphosis of spinal ligaments, fiber by fiber. It is an irregular projections (spondylosis rhomboides). The ossification is an adaptive process to support rapid following primary softening of the bone. Proof of this purpose is change in the fact that the position of the ossification is advantageous for resting the strain. This type of spinal ankylosis usually occurs in young adults. The third type is spinal process such as follows: bony ankylosis of fractures.

Treatment. Remove the active or dominant source of infection. In cases of spondylosis rhomboides fix by traction.

W. C. CLARK

McIntosh, H. C. New Transplantation as Treatment of Pott's Disease. *Journal of the American Medical Association*, 1914, 13, 135. By Surg. C. W. Abbott.

The article is a good review of the Abbott method of producing bony fixation in tuberculous of the spine. Nothing new is contributed to the subject. The author reports one recent case with good result and recommends the procedure.

G. I. B. S.

Castelli, E. Method of Localization of Spinal Tumors with Reference to Their Medical and Surgical Treatment. *Medical Review*, 1914, 13, 135. By Surg. C. W. Abbott.

The author does not limit tumors according to their origin but divides them into (1) extramedullary and (2) intramedullary tumors.

Little is known as to the etiology of the spinal tumors. There are several varieties of these among which are fibroma, angioma, neurofibroma, etc. Of the intramedullary the most common varieties are glioma, (hence glioma, neurofibroma and fibrosarcoma).

The pathological conditions in the region of these tumors vary greatly according to the class to which the tumors belong. In the case of the intramedullary tumors, the destruction of the tissues of the cord is often very marked and the cord structure may be greatly displaced and thinned out. In the case of the extramedullary tumors the destructive changes are rare and appear only after the lapse of years.

The symptoms of these conditions resemble the symptoms of compression of the cord. Both have a slow evolution but it is usually possible to distinguish between those of the extramedullary type of tumors and those of the intramedullary type.

In cases of extramedullary tumor pain is a very constant symptom and is usually the first to appear. The pain is of aching type and of remarkable localization, usually in the posterior lateral aspect of the thorax. It is constant and neuralgic and is often increased by effort such as deep breathing or sneezing. Accompanying the pain, but usually appearing later, are areas of painful hyperesthesia and anesthesia. This stage is called the nerve root phase. Later atrophy of muscles is noticed. Weakness in the lower limbs, sometimes in all the limbs, follows, and a progressive paraplegia develops. The characteristic feature of the paraplegia is that while the paralysis is mild the contractures are very marked. Involuntary movements of defense are often caused spontaneously but may be elicited by a very slight cutaneous stimulation. They consist of dorsal flexion of the foot on the leg, flexion of the leg on the thigh and of the thigh on the pelvis. Usually the Babinski sign is elicited at the same time. It is very important to determine the exact upper limit at which this reaction of defense can be elicited as it marks the lower limit of the tumor. The cutaneous reflexes are usually abolished at the upper level of the tumor and from this level downward. Therefore by determining these two zones, the upper limit of the reflex of defense and the upper limit of abolishment of the cutaneous reflexes, the lower and upper limit of an extramedullary tumor can be determined.

In the case of the intramedullary tumor pain is a rare symptom and is late in appearance. Paraplegia appears early, evolves rapidly and is usually accompanied by Brown-Séquard syndrome. The paralysis is real, and although there may often be contractures they do not predominate over the paralysis. Sensibility is early affected. The superficial sensibility is affected more decidedly on the side opposite the paralysis the deep sensibility on the same side as the paralysis (real Brown-Séquard). The tendinous reflexes below the compression are exaggerated as in the case of extramedullary tumor. When the symptoms described above are reviewed it will be seen that there are many differences between those of the two kinds of tumor. The Wassermann reaction of the spinal fluid may sometimes be misleading as to the etiology of the condition.

Treatment in the case of extramedullary tumor should be surgical, and if the tumor can be reached and removed the prognosis is good. In the case of intramedullary tumor the consensus of opinion is that there should be no intervention. In rare instances, however, operation can be performed in two steps as follows: (1) splitting the dura mater over the region of the tumor and (2) removal of the tumor if it has presented itself in the period intervening between operations. The prognosis is grave however and intramedullary tumors are apt to recur.

J. H. SMITH.

SURGERY OF THE NERVOUS SYSTEM

Bleschki, K. The Spastic Paralysis of Childhood and Its Treatment (Die spastische Lähmung im Kindesalter und ihre Behandlung) *Deutsche med. Wochenschr.*, 1933, 59, 600.

By Zentralblatt für ges. Chir. u. f. Grenzgeb.

This study presents the present state of our knowledge in regard to spastic paralysis. The clinical course of the disease is described with special reference to the paralysis, the spasms, and the involuntary motion. Considerable importance is attached to the paralysis, since recently much more has been said of the hypertonus of the contracting muscles than about the motor weakness of their antagonists. It is decidedly more difficult to treat the latter than to weaken the excessive strength of the spastic muscles. The spasms are caused principally by multiple stimuli which travel from the periphery to the center where not being controlled by the higher regulating centers, they manifest themselves as involuntary reflex movements. One of the complications receiving special mention is the spastic dislocation of the hip-joint which has recently been noted in several cases of spastic paralysis. This association may throw some light on the mechanism of the luxation.

Exercise is the most important factor in the treatment as it only can restore co-ordination. Operative

procedures are limited to those that restore proper relations between the component parts of limb and those that overcome the existing conditions between the single muscle groups by means of tenotomies and the lengthening of the tendons. In very serious cases Forster's operation of excising the posterior roots gives good results. It decreases the peripheral sensitiveness and thereby lessens the motor impulses. On the periphery Spitzky's neuroplasty and Stöckl's partial neurectomy may be used. The former seeks to raise the motor power of the hypotonic nerve and muscle area by anastomosing to them the partially resected nerve cut off the hypertonic area. The latter decreases the motor energy of the hypertonic muscles by resecting the single nerve-branches leading to the muscles. All operations, however, must be followed by careful after-treatment in the way of exercises. Good results can be expected only when the operative interference is regarded as merely the first step toward successful treatment. SMITH.

Harris. The End Results of Operative Treatment in Thirty Three Cases of Spastic Paralysis. *Boston M. & S. J.*, 1933, 81.

By Surg. Gyrec. & Obst.

In the five years ending in 1933 there have been operated at the Children's Hospital Boston, 57

patient in spastic paralysis. The investigation as limited to 23 that could be traced and of this number 2 are seen at home or in the out-patient department. They comprised 3 paraplegias, 5 hemiplegias, 4 diplegias, and 1 monoplegia. From observations of the result of the operative treatment the author concludes that excellent results in these cases have followed subsequent neurotomy, and this has important bearing on the question whether there is danger of permanent and irreversible lengthening of the tendo achillis after free division. Such conditions are especially looked for in the cases discussed and none are noted. It would seem therefore that the open operation is not so necessary.

Children who have not taken step have been able to walk, result of simple division or resection of the adductors and hamstrings, and apparently much can be expected from the Tenodesis procedure of transferring the pronator radii teres to work as supinator.

Considering the result of treating spastic paralysis by the section of 80 per cent alcoholized certain nerves it is shown that it is reported that return of the spastic contractures has not been prevented.

R. W. LEWIS

Hohmann, G. Experiences with the Stöckel Operation for Spastic Paralysis (*Meine Erfahrungen mit der Stöckelschen Operation bei spastischen Lähmungen. München und Berlin*). In *Archiv für Klinische Chirurgie*, 1911, 10, 1, 1-10.

Hohmann reports with the Stöckel operation for spastic paralysis has been satisfactory. He operated on the tibial nerve with popliteal space for spastic talipes equinus due to the tibial nerve behind the internal malleolus for talipes cavus, and the median nerve above the elbow for flexed and pronated contracture of the hand, once on the median nerve above the elbow joint for flexed contracture of the thumb and once on the obturator nerve for adduction contracture of the hip joint. The operations on the median and tibial nerves were for cases of cerebral hemiplegia in children and those on the obturator nerve for Little's disease.

On some of these tenotomies had been performed previously, and in others the tendons had been stretched or there had been tendon transplantation. In 10 of them improvement had occurred after these operations, but recurrences had set in. According to Hohmann, the cause of the failure of the previous treatments was that they could not decisively influence the central process, which disturbed the muscular balance of the injured extremity. This can be accomplished only by decreasing the excitability in the muscles with the Stöckel operation. After the operation, complete healing of the wound must be waited on then long-continued re-education therapy adopted. This after treatment is very essential factor preventing recurrence. The Stöckel operation is especially adapted to cases of Little's disease and

spastic contractions following apoplexy in adults. It is not suitable for cases characterized by marked choreic movements, or for hydrocephalus and ataxy. On account of its safety it is much to be preferred to the Tenodesis operation.

CARR

Ströbel H. and Kirschner. Result of Nerve Suture (Largebone der Verwundung). *Archiv für Klinische Chirurgie*, 1911, 10, 1, 1-10.

This report of fourteen cases of nerve-suture is especially valuable for the exactness of the details. It is not restricted to casual observations of the operative results, but makes note of the end result on the basis of subsequent careful investigations.

Thirty-three per cent of the operations were truly successful, three were complete failures. One of the latter cases however a defect had to be bridged over. Other patients were materially benefited. Although muscle groups remained permanently paralyzed. The authors emphasize the fact that in cases of injury to the bones that is accompanied by paralysis the nerve suture should be sought immediately so that time the repair be made more rapid than later. However, the

report of the nerve suture merely of confusion by fragment of bone and by freeing the nerve, long interruption of its function may be prevented. The authors reported it as interesting that the contrary to their former observations, sensory and especially the tactile sense did not return. Motor regeneration had taken place. Regeneration takes from a week to one year. Repair as well as effected by means of simple suture. It is as well as the all of them are trapped about the point of injury.

The authors give report also of 12 cases of injury to nerve plexus from wounds, in each of which the plexus was exposed. In one of these cases the nerve was removed from the nerve.

In partial success in the other there was severe intraneural hemorrhage, but the paralytic symptoms disappeared after six months without further development. At the end of six years the arm in one of these patients had fully regained its normal function.

CARR

Katsenmetz M. Nerv Plexus Grades (Über Plexusverletzungen). *Archiv für Klinische Chirurgie*, 1911, 10, 1, 1-10.

In a case of paralysis of the brachial plexus the supraclavicular nerve of the healthy side was freed from its bed from its origin to the incision scapular and brought behind the carotid artery and the jugular vein between the oesophagus and the spine to the diseased side. There it was sutured in an incision made in the plexus. The patient operated upon in this manner was a nine-year-old boy, but except for the ability to extend the fingers and flex the elbow slightly suffered from complete paralysis of the upper arm. At the end of three months after the operation he was able to move the upper

arm in all directions, to flex the forearm and to extend and supinate it a little to flex and pronate the hand, and to move the fingers in all directions. In a case of paralysis of the lumbosacral plexus the obturator nerve of the healthy side was liberated

in its entirety and carried behind the internal and external iliac arteries to the diseased side. This operation has been performed only once on the human being and such short while ago that nothing can be said as yet in regard to the result. WARD.

DISEASES AND SURGERY OF THE SKIN FASCIA APPENDAGES

Hendry. Report of an Interesting Bacteriological Finding in Case of Pemphigus. *Surg. Gynec. & Obst.* 93, xvii, 85. By Surg. Gynec. & Obst.

Hendry reports the findings of a hitherto undescribed, anaerobic, slightly motile bacillus isolated from the blebs of a case of pemphigus. The method of procedure was as follows: The surface of the bleb was secured and the fluid aspirated. The usual skin-contaminating organisms were found in aerobic culture, but cultures grown on human muscle anaerobically showed in from the first three weeks small white colonies. On microscopical examination these colonies were made up of a very small short slightly motile bacillus in pure culture. No growth could be obtained by transfer to ordinary media, either aerobically or anaerobically though transfers to new bits of human muscle were always successful.

A culture from the organism was prepared and given in increasing doses, the patient showing some improvement during the administration. The author does not feel that this is proof of the curative value of the vaccinations, but suggests that it warrants more extensive investigation along these lines.

Loeb L., and Sweet, W. O. Histogenesis of Multiple Carcinoma of the Skin. *J. Med. Research*, 1913, xxviii, 125. By Surg. Gynec. & Obst.

Loeb and Sweet observed the changes that occurred in pieces of tumor that were removed from a patient affected with multiple carcinoma. The patient, a young man 33 years of age, the tumor, a growth of years standing, was located on the right side of the chin under the lower lip. About 3 years previous to the removal of the growth the patient was given Röntgen ray treatment. At the time of its removal the tumor had involved the entire side of the face, part of the nose, the skin in the angle of the eye, and some superficial parts of the lower lip, so that it readily there were numerous definite and distinct lesions. The authors summarize their conclusions as follows:

The formation of multiple carcinoma of the skin depends on primary increase in activity of certain parts of the epidermis. In this we have to deal with an affection of the epithelial cells which is independent of proliferative changes or of collections of round cells in the connective tissue, and of nutritive influences of the blood vessels. In our case the proliferating energy of the epithelium which led to the formation of the multiple carcinoma was rela-

tively small. The infiltrating power of the proliferating epithelium was equally slight. In consequence of slight infiltrating power we may have an outgrowth of epithelium into the air instead of a downward growth into the underlying cuts. In a certain relationship to deficiency in proliferating and infiltrating power stands perhaps the inability of the proliferating epithelium to undergo the normal metamorphosis of the surface epithelium into keratin and keratin.

GEORGE E. BENTLEY

Jeff M. Free Fascial Transplantation; Experimental Investigations (Zur Frage der freien Fascientransplantation, Experimentelle Untersuchungen). *Chir. Arch. Veltmann* 93, xxix, 466. By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

The author carried out a series of experiments in free fascial transplantation, using the fascia of the tractus ileo-tibialis or that of the anterior sheath of the rectus. The transplantations were performed on the stomach, the colon, the urinary bladder and the liver of cats. Thirteen of them were made on the stomach. Defects were first made in the wall of the stomach and then the mucosa was sutured. Next the defect in the serosa and muscularis were closed with fascia. In one case the mucosa was not sutured before the fascia was transplanted. In this instance fascial necrosis and peritonitis resulted. In all of the other cases (the time of observation was 73 days) the results were good. At the end of 7 to 8 days there was complete union of the fascia with the stomach wall. The fascia was live and new blood vessels had formed in it. The mucosa and submucosa had regenerated. The defect in the muscle remained. The fascia resembled a tendon. The nutrition of the fascia was derived from the walls of the stomach. In many cases adhesions had formed between the fascia and the omentum and a part of the new blood vessel formation was derived from the omental vessels. Adhesions to the omentum could be prevented only by resection of the omentum. The same results were obtained by the author in transplanting fascia into the bladder and colon. At the end of 6 days the urinary bladder had a perfectly normal appearance. When the mucous membrane defects had not been sutured, gangrene of the transplant and peritonitis always resulted. The experiments on the liver for the purpose of checking hemorrhage also gave good results.

On the basis of his work the author comes to the conclusion that fascia can be transplanted with

good results in the peritoneal cavity especially for the purpose of reinforcing doubtful suture lines. As the fascia does not contract, stenoses do not result at the site of the transplantation. On the inner side of the fascial transplant new epithelium is formed in about 30 days, and the secretory function of the stomach therefore does not suffer.

In these experiments the author describes a case of fecal fistula following appendicitis, from the Manteuffel clinic. In this instance when the mucous membrane was sutured, a piece of fascia from the anterior rectus sheath was sutured over it to reinforce it. With the exception of partial fascial necrosis complete recovery resulted. **HARRIS.**

Kornow P. The Free Transplantation of Fascia (Über die freie Fascientransplantation). *Beitr. z. Klin. Chir.*, 9, 3, 1917, 144.
By Zentralbl. f. d. ges. Chir. u. L. Grossegeb.

Kornow gives an exhaustive review of the literature experimental and clinical material concerning

free fascia transplantation. His own material is divided into clinical and an experimental part. His numerous experiments confirm and supplement previous work. A new feature is the successful closing of defects in the chest wall by transplantation of fascia. Eighteen cases are reported. The procedure was used in twelve cases to strengthen the muscle sutures in operations for inguinal hernia, and once each to close the internal ring in crural hernia, to close defect in hernia pulmonalis, to repair defect in the pleura in penetrating wound of the chest, for plastic operation of the splinter in place of Thiernsch metal ring in case of prolapse of the anus, to fix the testicle in case of retention of the testicle, and to mobilize an ankylosed mandibular joint. In all except one case there was union of the transplanted fascia and the clinical results were satisfactory. The author does not give sufficient number of references to the literature nor substantiate his statements by clinical evidence either for or against his procedure. **REICH.**

MISCELLANEOUS

CLINICAL ENTITIES—TUMORS, ULCERS, ABSCESSES, ETC.

Tyzer E. K. Factors in the Production and Growth of Tumors Metastases. *J. Med. Research*, 9, 3, 1917, 300.
By Surg. Gynec. & Obst.

In this study and series of experiments the author attempts to answer the following questions:

In patients in whom metastasis has already occurred will the growth of the secondary masses be accelerated by the removal of the primary tumors, and will such removal shorten life or prolong it?

Do the procedures followed in the course of physical examinations and surgical operations increase or diminish the incidence of metastases?

In his experiments Tyzer used mice, and the results he obtained seem to furnish rather conclusive proof that mechanical force is an important factor in the causation of metastasis. Moreover the author is convinced that metastasis is dependent also upon a number of other determinable factors, of which the biological character of the tumor tissue is of first importance. In certain propagated tumors second deposits are rarely or never observed, while in others they are frequent. This is true also of the various types of spontaneous tumors. Tyzer believes that the mechanism by which tumor cells are set free in the circulation depends to a great extent upon the structural character of the tumor and the peculiarities of its growth undoubtedly also to its age and size. Thus his experiments clearly show. Metastases of the tumor of the walking mouse may be produced experimentally by the application of intermittent pressure such as massage or gentle pinching. The results obtained

in this investigation according to the author and practical application in the management of tumor patients. From them every physician should realize the irreparable harm that may result from the manipulation of malignant tumors in their early development. **GEORGE E. BARNES.**

Stewart J. C. The Malignancy of Giant Cell Sarcoma. *Surg., Gynec. & Obst.*, 9, 3, 1917, 30.
By Surg. Gynec. & Obst.

The object of this article is to improve by the citation of cases the statements made freely in current literature that giant-cell sarcoma is benign and never forms metastases. Two cases are cited, both of which caused death, and one of which formed several metastases. The first was that of central giant-cell sarcoma of the metatarsus; death resulted from multiple metastases. The second was that of central giant-cell sarcoma of the humerus which caused pathological fracture of the bone, and death by local recurrence.

Falta, W. Diseases of the Glands of Internal Secretion (Die Erkrankungen der Endokrinen). Berlin: Springer, 1917.
By Zentralbl. f. d. ges. Chir. u. L. Grossegeb.

Falta's clinical work is an excellent supplement to Biedl's classical work on the experimental physiology and pathology of the internal secretory glands. These he defines as glands that exert directly on the circulation a harmonious with powerful physiological effects. Adrenalin is the only one that is defined chemically. Each ductless gland has its specific function. They cannot compensate for one another although disease caused by abnormality of

function in one may be modified by a pathological condition in another. The great variety in symptomatology may be explained as being due to disturbances in these glands and to differences in the constitutions of the patients.

The diseases of the thyroid gland are divided into two classes, those characterized chiefly by local symptoms, such as goiter, tumors and inflammations, and those characterized by an increase or decrease in the secretory function. Basedow disease is caused by hyperactivity of the thyroid with secondary involvement of other glands. Falta does not believe in the combination of Basedow disease and myxedema recognized by many experienced surgeons. He concludes that the myxedematous symptoms are the result of insufficient functioning of the hypophysis. It does not attach much importance to the involvement of the thymus. Operation should not be devised for mild cases in patients in good circumstances, those with neuropathic tendencies. Long delay is unwise. The drug frequently given to refrain from operation when the X-ray shows a thymus shadow is not approved. Falta has observed good result from X-ray treatment. On account of the sclerotic changes in aplasia of the thyroid, old age has been compared with chronic myxedema, but reckless thyroid medication in old age must be avoided. Sporadic cretinism is a hypothyroid or a thyroid condition of a poorly-developed organism. The more severe forms are characterized by lack of development of the bones and blood-forming organs, the ductless glands, and the central nervous system.

Mild cases of thyroid weakness recover spontaneously or under treatment with thyroid tablets. In severe cases the ideal treatment by transplanting a new thyroid is not possible, for only auto-transplantation has permanent results. While thyroid medication is effective in the myxedema of adults, in sporadic cretinism it is of value only in the milder forms and when begun very early. In such cases the effect on growth is very marked. Endemic cretinism and goiter are related. Goiter is caused by drinking-water and is due probably to a toxin or toxalbumin of organic origin. Iodine treatment is effective in proportion to the degree to which the changes are hyperplastic rather than degenerative. Falta believes that endemic and sporadic cretinism are not identical and that thyroid disturbance is not the only cause of the endemic form. The toxin of cretinism injures the central nervous system and other tissues as well as the ductless glands directly. The thyroid factor may be of greater or less importance. Therefore thyroid medication varies in effectiveness in different cases.

Tetany has been shown to be the result of insufficiency of the epithelial bodies, which are found in the thymus as well as the thyroid. These bodies produce a hormone which influences the calcium metabolism in the central nervous system. When they are deranged in function there is loss of

calcium in the ganglion cells of the spinal cord and consequently a condition of hyperexcitability. Different forms of tetany are discussed. The epithelial bodies continue to function in auto-transplantation of the thyroid. Opinions differ as to the value of calcium medication. Falta has seen no effect from it. There are some errors in the section on diseases of the thymus. Hyperfunction of the hypophysis causes acromegaly. There is an interesting discussion of the causes of combination of acromegaly with symptoms of Basedow disease or myxedema. Decreased activity of the hypophysis causes hypophyseal dystrophy. Administration of an extract of hypophysis is effective. Cysts and gummatous may occur in the epiphysis. Tumors are found chiefly in young males, so that it is probably a question of congenital abnormality of development. Pressure symptoms and trophic disturbances are marked — precocious development of the body and premature development of the genitalia. We think it possible that the trophic effects of pineal gland tumors affect the suprarenal glands, causing hyperplasia. Operation has never been attempted.

In Addison's disease there is lymphocytosis, and frequently status lymphaticus, hyperplasia of the thymus, and atrophy of the genital glands. Decreased function of the suprarenal glands is caused generally by tuberculosis of the cortex, but may result from hemorrhage or thrombosis. Sclerosis may be caused by syphilis. The special affinity of diphtheria toxin for the suprarenal glands is noteworthy as a cause of heart failure. Adrenalin is a hormone affecting this sympathetic system. It is used with good results subcutaneously in collapse, and by the mouth for abstracting oesophageal cancer and for phosphorus poisoning. Hyperfunction of the suprarenals may be caused by tumors of the chromaffin tissue. Adenoma of the cortex may cause increased development of the body and premature development of the genitalia with various abnormalities in the sexual sphere. Early castration causes incomplete development of the genitalia and increase in stature. Late castration causes contraction of the prostate. Eunuchs without being castrated, resemble eunuchs. This condition sometimes occurs in adult life as a result of diseases of the genital glands (trauma, syphilis, gonorrhea, gummatous, sexual abuse, alcoholism). In sexual defects in men, thyroid, radium and pituitrin treatment is recommended and in women, organotherapy and transplantation of the ovaries.

Falta multiple ductless-gland sclerosis is an infectious disease that involves the greater part of the ductless gland system. It can be diagnosed clinically from symptoms of hyperthyroidism, eunuchoidism, insufficiency of the hypophysis, symptoms of Addison's disease, and cachexia. There is no definite picture from the point of view of pathological anatomy. Falta explains gigantism as an abnormal predisposition of the entire ductless gland system. Infantile gigantism is due to a developmental disturbance of the entire organism of which the

family development of the ductless glands is only part

Stomptoids are the result of exhaustion that is, they are the last-born of families with numerous children. In the chapter on the pancreas Falta says that pancreatic lithiasis is frequently combined with cholelithiasis and that it is part of family tendency to stone-formation, which leads to indurative pancreatitis with glycosuria in 34 to 35 per cent of the cases. The question of the relation between the trauma and diabetes is important surgically. Sugar is found in 3 per cent of head injuries.

The concluding chapter treats of the different forms of obesity. Adipose dolorosa is not thyroid in origin, though thyroid treatment often shows good results. Falta has contributed much to the understanding of this very difficult subject by his clinical material. The illustrations are very helpful. The bibliography adds special study. Kloss.

SERA, VACCINES, AND FERMENTS

Lessner, K., and Kögel, H. Experimental and Clinical Results Obtained with Rosenbach T. bacillus (Über Tuberkula Rosenbach Experimentelle und klinische Erfahrungen). *Beitr. Klin. u. Tuberkul.* 9, 3, 1910, 92.

By Zentralbl. f. d. ges. Char. u. Grenzgeb.

The authors attempt to answer the three following questions: Are there differences in the form of tuberculous in treated and untreated animals?

1. Is there difference in animals treated with old tuberculin and with Rosenbach's t. bacillus? 3. Do the preparations have specific effect on the animal body? Nine guinea pigs are injected with .005 mg. each of a strain of t. bacilli of the human type grown directly from the sputum. Nine others were injected with .5 mg. each of culture of bacilli. All of the infections were severe. Some of the animals were treated with Rosenbach tuberculin, some with old t. bacillus, and some not treated at all. A few of the animals were killed soon after ward, and the blood, as withdrawn for the purpose of demonstrating complement fixation tests whether it contained antibodies.

In the first series, the animals treated with old t. bacillus seemed to show greater length of life than those treated with Rosenbach t. bacillus. In the second series there was no marked difference. As to the form of the tuberculous, the treated and untreated animals showed no difference. The former did not live any longer than the latter. In the animals which lived longest whether they were treated with Rosenbach t. bacillus or with old t. bacillus, glandular and pulmonary tuberculous was most marked. In those that died early general military tuberculous was the prevailing form. In answer to the third question, it is found that there was no fever disturbance of the general health or infiltration around the site of the injection. A fall of temperature after injection of .5 cc. of the Rosenbach tuberculin, resembling anaphy-

lactic attack, was noted as specific effect of t. bacillus. The complement fixation tests showed the presence of specific antibodies against the Rosenbach tuberculin. Genuine recoveries are not observed with either form of t. bacillus. Rosenbach tuberculin is to be regarded as mild form of tuberculin.

With regard to the clinical effects noted, Rosenbach t. bacillus showed only cutaneous reaction and this only exceptionally and been given in concentrated solution. For the intracutaneous reaction it was also to be 100 times less effective than the old tuberculin. In the diagnostic subcutaneous test the Rosenbach t. bacillus always showed marked reaction around the site of injection. The general symptoms are more violent and more unpleasant than those caused by the old tuberculin. Marked infiltration, pain, and lymphangitis were frequent. The reaction to the site of injection which appeared even with the smallest doses that had no other effect, were to be explained not only as being purely specific effect of tuberculin, but as due partly to the albumose content (trichophyton products). Perceptible focal reactions appeared only after injections of .005 mg. of Rosenbach tuberculin therefore .5 mg. is not sufficient for diagnostic injection.

In diagnosis the Rosenbach tuberculin has no advantages. It was used therapeutically on 100 easy cases according to Rosenbach's directions, but probably with more cautious dosage. High temperatures could not be avoided in many cases. The cases used for treatment were severe but not hopeless. The severity of the local reaction several times necessitated giving up the treatment. The influence on the general condition and the subjective symptoms was as a rule good. In 12 cases the clinical findings and the general condition were markedly improved. All of these cases were tolerant of the Rosenbach tuberculin.

Like those that turned out badly reacted much more strongly. The authors attribute the failures, severe reactions, etc. partly to the fact that the cases selected for the treatment were unsuitable. Acute and subacute cases with extensive distribution should be excluded. Reactions should be avoided. In the dosage it is to be noted that focal reactions appear sooner than general reactions, and, especially in severe cases, cumulative effect must be counted on. Large initial doses should be avoided. Toxic substances are small in amount as compared with antigens but they are present. The presence of foreign non-specific albumoses is a disadvantage, for they are partly responsible for marked local reaction. Hiss.

Lewis, C. The Treatment of Cancer Patients by Vaccination (Die Behandlung von Krebskranken mit Vaccination). *Therap. u. Grenzgeb.* 9, 3, 1910. By Zentralbl. f. d. ges. Char. u. Grenzgeb.

The author experiments animals convinced him that autolysis of tumors have beneficial

therapeutic action. The results justified the application of the principle to the treatment of human beings. An aetogenous vaccine was made from the extirpated tumors to test their therapeutic value in lessening recurrences and destroying metastases. The author cites two cases that were affected favorably by the vaccine and very emphatically recommends its use in suitable cases of cancer. *Stefan.*

Ruediger, E. H. The Duration of Passive Immunity Against Tetanus Toxin. *Philippine J. Sc.* 9, 3, viii, 39. By Surg. C. M. & Obst.

The attempt is made to determine the duration of passive immunity against tetanus by a series of experiments upon both horses and guinea pigs. The experiments are grouped under the following three heads:

1. The duration of passive immunity in the horse after the injection of homologous tetanus serum.

The duration of passive immunity in the guinea pig after an injection of tetanus serum from the horse, preceded by repeated injections of antitetanic serum from the horse.

3. The duration of passive immunity in the guinea pig after an injection of a tetanus serum from the horse preceded by repeated injections of normal horse serum.

The author reaches the following conclusions:

The subcutaneous injection of 500 units of antitetanic serum from the horse into the horse confers passive immunity of between six and eight weeks duration.

Guinea pigs subjected to repeated inoculations with antitetanic serum from the horse do not acquire the power to eliminate more rapidly they acquire a tolerance as is shown by a longer immunity.

3. Guinea pigs treated with repeated injections of normal horse serum acquire passive immunity following the injection of tetanus serum from the horse, that is of longer duration than the immunity of untreated guinea pigs. *J. H. Sallis.*

BLOOD

Ordway, T., and Kellert, E. The Complement Content of the Blood in Malignant Disease. *J. Med. Research*, 9, 3, xviii, 57.

By Surg. Gynec. & Obst.

The authors have noted that in many cases of cancer and leukemia the blood shows such striking numerical and morphological changes as to make it seem possible that alterations in the function of the cells or plasma might be detected by examining certain biological properties of the serum. Their article deals with the hemolytic power of the serum, with particular reference to its complement content.

By their studies it seems proven that in the majority of cases the hemolytic complement content of the blood serum in the different varieties and stages of human cancer is relatively constant. The amount is practically the same as that found in health and in persons suffering with certain other diseases.

Such human serum in most cases contains one-tenth to one-twentieth as much hemolytic complement as pooled serum from adult guinea pigs.

There is no increase of hemolytic complement in myelogenous or lymphatic leukemia. The hemolytic complement content of the plasma of citrated human blood does not differ from that of the serum.

GEORGE L. BAILEY

Friedman, M. Prolonged Intravenous Infusion (Über intra venöse Dauerinfusion). *München. med. Wochenschr.* 9, 3, ix, 2. By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

Proctoclysis is destined to supersede a cutaneous and intramuscular infusion. However, in cases in which the patient is unable to retain the fluid the retention of which causes—as in peritonitis—unpleasant sensations of fullness in the abdomen the intravenous infusion of Haldenhal is the best method for administering fluids as well as medications. It has been shown that rapid intravenous infusion, especially with the addition of larger doses of adrenalin, produces a marked increase in the vascular tension and is dangerous for the heart. The author therefore has adopted the method of prolonged intravenous infusion, according to which only small quantities are infused at a time and the period of infusion is extended over many hours. The technique is the usual one, except that the cannula, the arm, and the funnel filled with the fluid must be securely fastened. To regulate the flow a pinch-cock is attached to the rubber tube.

Friedman has obtained the following impressions from his method: (1) That in the administration of salt, adrenalin, and digitalis solutions by the drop-method the blood pressure rises, not suddenly but gradually and remains at the same level during the period of infusion. (2) That this method has no by-effects. (3) That it causes no excessive burden for the heart. (4) That with slower infusions the heart can sustain larger quantities of fluid, so that a better flushing out of the organism and diuretics are obtained. *N. W. W.*

BLOOD AND LYMPH VESSELS

Geinitz, H. T. The Treatment of Varices with Spiral Incision (Zur Behandlung der Varizen mittelst der Spiralincision). *München. med. Wochenschr.* 9, 3, ix, 57. By Zentralbl. f. d. ges. Chir. u. I. Grenzgeb.

The author reports the later results obtained by Rindfleisch operation for varices performed at Garré's clinic. In six cases the immediate result did not seem satisfactory, but the later examination of five cases, one and one-half to two years after the operation, showed surprisingly good result. The ulcers cured only once and then it did not cause trouble. For diffuse varices and in cases where simple ligating methods have failed the spiral incision is recommended, though a sure and ideal result cannot be guaranteed. *Warry.*

in three and oligomenorrhea in three. In four cases of myomatous uteri amenorrhea occurred. The cases have been under observation for several months. The duration of the treatment was between six and twelve weeks.

Vaastri. A Consideration of Cystic Tumors of the Uterus of Congenital Origin (Considération sur les tumeurs kystiques de l'utérus d'origine congénitale). *Ann. de gynéc. et d'obst.* 9, 4, 33. By *Journal de Chirurgie*.

In connection with description of two cases of submucous tumors of the uterus, one of which caused an inversion of the uterus in a young girl and was examined histologically, the author protests against the general tendency to believe that all cystic tumors originate in the Wolffian ducts.

Without doubt the Wolffian ducts, which are closely connected with the Müllerian ducts, are the cause of a certain number of these cyst formations, but malformations of the ducts of Müller also play an important part.

Since malformations of the vagina have been ascribed to deviations of the ducts of Müller and since any anomalies in shape, position, and development of the vagina are likewise related either to lack of development or to over-development of these ducts, why not also admit that an exaggerated growth is possible even in the uterus itself? If the development of the genital organs various evolutions in the epithelium are noted. Thus, the epithelium differs in the corpus, the cervix, and the portio. Numerous budding phenomena are observed in the formation of the uterus and its numerous glands. A aberration during these profound changes would not be impossible.

According to Meyer the cavities that affect the organs of Müller might take place in the three following periods. When the ducts of Müller occupy the median line and are supported on the sides by the canals of Wolff. During the joining of the canals of Müller. During the separation of the canals of Müller and the Wolffian ducts.

The author states that when the epithelium covering the cyst is polymorphous in appearance, cylindrical in certain areas and flat-celled in others, the cyst undoubtedly may have originated in the duct of Müller. Cysts that have originated in the Wolffian ducts are covered entirely with cylindrical epithelium.

In certain exceptional cases this origin may be recognized by close study of the decidua in normal or ectopic pregnancy. In a case of ectopic pregnancy reported by Ferroni numerous decidua elements are found in the center of an adenomyoma, collected beneath a cavity formed by cylindrical epithelium which had its origin in the Müllerian ducts.

Vaastri asks further if very often in the center of adenomyoma there do not exist nests of Müllerian epithelium from which, by encystment, conjunctive reaction of fibroma may occur. L. CHRYSTEN.

Kalledey. The Etiology and Organotherapy of Uterine Hemorrhages (Zur Lehre von der Ätiologie und Organotherapie der Uterinblutungen). *Deutsche Gesellschaft f. Gynäk. Heilk.* 9, 2, May. By *Zentralbl. f. d. ges. Gynäk. u. Geburtsh.* 2, d. Grenzgeb.

Kalledey treated twenty-one cases of dysmenorrhea by the administration of ovarian extract, and observed the immediate cure not only of the local, but also of the nervous, symptoms. Five of the twenty-one patients became pregnant during the treatment. This fact leads the author to conclude that with the regulation of the internal secretion, the condition that favors conception also is influenced favorably.

On the basis of his results the author believes that the cause of dysmenorrhea is hypofunction of the ovary. Forty-one cases of menorrhagia and metrorrhagia he treated successfully with hypophyseal extract. In five cases of hemorrhage he effected a cure by the use of corpus luteum extract. One of these patients had been previously treated unsuccessfully by all other known means.

Kalledey's opinion his results confirm the theory that uterine hemorrhages are due to correlative disturbances of the organs of internal secretion. It leaves open the question as to whether the results are produced directly by the hormones used or by the hormones produced through the stimulation afforded by the injected material.

Kalver. An Obstinate Metrorrhagia (Ein hartnäckiges Bluterguss von Metrorrhagie). *Archiv. f. gynäk. u. Geburtsh.* 9, 3, 1922. By *Zentralbl. f. d. ges. Gynäk. u. Geburtsh.* 2, d. Grenzgeb.

The author used 50 cc. of horse serum subcutaneously and tamponed the uterus with solution of gelatine. An immediate and perfect success in a case of uncontrollable menstrual metrorrhagia. The subcutaneous injection of 50 cc. horse serum is another case of uncontrollable hemorrhage from the uterus also as followed by an immediate and perfect cure. Symptoms of anaphylaxis were slight.

STARR.

Lawrence. Double Uterus and Vagina. *Southern Med. J.* 9, 3, 477. By *Surg. Gynec. & Obst.*

The author reports the case of a married woman, forty-eight years old, who had never been pregnant. As consulted with irregular bleeding. An examination showed a vaginal septum and two cervixes.

On opening the abdomen the first appearance of the uterine fundus was that of a bicornate uterus. The left tube was not attached to the broad ligament, but lay free in the abdominal cavity. The left ovary occupied a pocket in the broad ligament adherent to the uterine body. The right tube and ovary were normal. The vaginal canals were demonstrated.

This was a case of uterus bilocularis. Several small myomata were found in the uterine wall.

C. H. D. VAN

Murphy, J. B. Procidential Uteri. Murphy's Method of Fixing the Uterus. *Surgical Cases of John B. Murphy* 9 3, II, No 3.

By Surg. Gynec. & Obst.

The patient was 56 years of age and the trouble was of 33 years standing. With the woman in the Trendelenburg position, a transverse semilunar incision 6 in. long was made in the skin above the symphysis. The tissues were divided down to the aponeurosis of the recti. The latter were then freed from fat over an area in. and as long as the incision and their edges retracted. The right rectus was then incised for in. close to the median line and parallel to its long axis. This incision extended through the peritoneum. The fundus grasped by a vulsellum, was brought out through the opening until the cervicocorporal portion was clearly in view. The round and broad ligaments were then clamped with hemostat on either side down to the cervicocorporal junction and cut free from the uterus down to the tip of the forceps. The stumps were ligated and the tips sewed securely to the cervicocorporal junction. This portion was then slipped back into the abdomen. Thus the body of the uterus was left bare and free above the level of the divided recti.

The peritoneum was next sutured accurately around and to the circumference of the cervicocorporal portion of the uterus. The myometrium of the peritoneal cavity was closed. The uterus was then split through the middle from before backward, parallel to the long axis of the body down to the cervicocorporal junction. It was opened laterally to form two wings. The mucosa was next cut off clear out through the divided oros down to the cervix, and removed. The lateral flanges of uterine muscularia were then sewed firmly to the aponeurosis of the rectus all around making a hat-like flange over the recti. Finally the divided edge of the aponeurosis of the rectus was tightly closed about the cervicocorporal portion. The skin and fatty tissues were united and small drain left in the lower angle of the wound.

When this method is used the uterus can never get back into the abdomen. The traction on the anterior vaginal wall holds the bladder in position that on the posterior vaginal wall holds the rectum. The only intra-abdominal work is the detaching of the broad ligaments. The stumps of these are covered by suturing; therefore no bare surface is left within the peritoneum at the completion of the operation. If this operation is performed before the menopause, great care should be taken to remove all of the uterine mucosa otherwise periodic hematoma will form at the menstrual periods. The operation can be performed in 30 minutes. L. J. ALTMAN.

Kuhn. A New Procedure for the Relief of the Retroverted Uterus. *J. Ohio St. Med. Ass.* 914, vi, 79.

By Surg. Gynec. & Obst.

In this article the author gives his ideas as to the cause of symptoms and his operative treatment for the simple retroverted uterus. He states that many

women have retroversion and have no symptoms at all but that those suffering from this condition suffer through a ptosis of the abdominal and pelvic viscera, causing an engorgement and finally varicosity of the pampiniform plexuses and loca ceratio of one or both ovaries within the folds of the rolled broad ligaments. A previous inflammatory pelvic condition or relaxed peritoneum will also cause varicosities of the broad ligaments.

Treatment. The pampiniform plexuses are both ligated. The outer ends at the pelvic border are first tied in front, leaving the ligatures long; then the terine ends are tied in the same way, the static blood being the expressed through an incision. This leaves the infundibulo-pelvic ligaments relaxed so they are plicated through an opening made in the anterior border of the broad ligament. The peritoneum is then closed over this plication by purring suture. A ventro-suspension is now done with a long loop of cat-gut in order to temporarily relieve tension on the tender ligaments. The round ligaments are not disturbed. EUGENE CAR.

Davis, C. G. A Review of the Literature and Case Report of Ruptured Uterus. *Surg. Gynec. & Obst.* 9 3, xiv, 5.

By Surg., Gynec. & Obst.

Most ruptures of the uterus are probably incomplete at first, and are not recognized until after the rupture of the peritoneum. In order to make a fair comparison of complete and incomplete rupture, and especially of the methods of treating them, the statistics of both should be considered together. Following these statements Davis discusses rupture of the uterus in regard to its etiology and frequency. As to the extent to which rupture involves the uterus, the author found in his study of the cases collected by Trask, that during pregnancy 68 per cent involved the body or fundus and 32 per cent the cervix during labor 85 per cent involved the fundus, 56 per cent the body of the uterus, and 55.5 per cent the cervix. In total of 374 cases, which the list was mentioned, 33 per cent involved the cervix, and 46 per cent the body and fundus.

The probability that rupture will follow the modern Cesarean section is not great, and in most cases should not be used as an argument in favor of sterilizing or performing the Pomeroy operation. Section cases should be carefully watched during the latter months of subsequent pregnancies, and when there is pelvic deformity, overdistention of the uterus, some question as to the integrity of the old scar area. Cesarean section should be performed several days before the expected onset of labor. Under no condition should the patient undergo the strain of the second stage of labor.

Treatment by tamponade and binder is a good temporary measure and may give good results in the incomplete cases where there is little hemorrhage but in all classes of cases statistics indicate that operative treatment gives better results than conservative treatment.

Werboff J. The Uterus of Woman; Its Normal Function and Its Rupture Incident to Labor (*Die Gebärmutter des Weibes, ihre normale Arbeit und ihre Zerrungen während der Geburt*). Berlin Karger, 93.
B. Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

The author lays down the general principles of the law governing the physiology of hollow organs of the body namely the law of peristaltic movement depending on the alternating action of the longitudinal and circular muscular coats of these organs. He pronounces our views in regard to the physiology of the uterus during pregnancy and during the puerperal state as well as the pathological relations governing rupture of the uterus erroneous.

Werboff criticizes the theory of Bandl, that thinning out of the lower uterine segment is the cause of rupture and places the fault in the friability of the tissue as a result either of difficult previous births or else as an acute developing condition in the first pregnancy. Coincident with this friability there is functional weakness of the uterine musculature, the clinical picture of rupture varying according to either one or both of these pathological conditions. According to the author there can be no prophylaxis, as the symptoms heretofore called threatened rupture are really due to beginning rupture. A detailed contradiction to the anatomic basis of the Bandl theory is offered the author applying his own law of peristaltic movement to all of the uterine functions incident to labor and the puerperium, and to the changes in form resulting therefrom. He differentiates the action of the longitudinal muscular layer from that of the circular the former producing complete effacement and dilatation of the cervix, and the latter aided by the thoracic-abdominal pressure, serving to expel the child.

In the antagonistic action of the abdominal muscles and diaphragm the upper fixed point of support for the contracting uterus is really to be found within the hump. The contractions and expansions of the hump and the changes in form incident thereto are the origin of the voluntary pressure pains, i.e., the contractions of the supporting muscles of the thoracic and abdominal cavities. Special significance is attached to the anterior abdominal muscles as being the anterior fixed points for the uterus to work against. During an insufficiency of these muscles the woman in labor endeavors to overcome the disturbance of the pressure pains resulting therefrom by assuming various positions most favorable to her.

The author recommends, as a practical aid in cases where an insufficiency exists, that suitable binder be applied during the expulsive period by the woman herself in a manner most effective to her. In severe distastefulness of the rectum with the so-called Hängeleib the correction of the position or stretching of the contracted anterior wall of the uterus would be too painful, and therefore the application of the binder is contra-indicated. The author

has employed the binder in 3 cases, with very favorable results. The monograph closes with a complete contradiction of the Bandl theory as to effacement of the lower uterine segment even though in many points definite proof of his contention is still lacking. The article contains plates of Bandl's own work, and autopsy protocols of the author's four cases of ruptured uterus. VASEROT.

ADnexIAL AND PERIUTERINE CONDITIONS

Cohn, F. The Clinical Significance of Rupture of the Follicle in the Ovary (*Die klinische Bedeutung der Follitelproruptio im Ovarium*). Arch. f. Gynäk. 93, 2d, 505.
B. Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

In the rupture of a graafian follicle the peritoneal cavity communicates with the inner part of the ovary for a time at the site of the rupture. The layer of luteal cells which form over the site of rupture is very thin and is often further thinned out by the accumulation of fluid in the space. This new cyst also may rupture and hemorrhage may follow. Bacteria from the abdominal cavity may enter into the ovary at this site.

Hemorrhage from follicle has its origin either in torn vessel or in deeper-lying ovarian tissue. Schauta has observed follicular hemorrhage of several liters of blood. Hemorrhage into the free peritoneal cavity from corpus luteum occurs newly as often. Binger described such a case where more than two liters of blood were lost. Cohn adds six cases of his own to those already published. In five instances the severe hemorrhage came from fully developed and in one instance, from retrogressive, corpus luteum. In two cases ruptured in late pregnancy was suspected. In the other four cases it was found incidentally. The hemorrhage in two cases was due to pressure on the matured follicle during an internal examination. Hemorrhages of this kind may be controlled with anastomotic sutures or by excising the part. Large follicular hemorrhages can also be recognized at operation; smaller intraperitoneal hematomata may be present without symptoms, and are found only incidentally. The hemorrhages may be followed by adhesions between the adnexa and the peritoneum.

That bacteria migrate into the follicles has also been demonstrated. The frequently occurring corpus luteum abscesses are due usually to gonococci or to bacilli bacilli, and but rarely to streptococci, staphylococci or pneumococci. A case recorded by Orthmann the finelated extremity of the tuberculous tube extended directly into the corpus luteum abscess. Fryx found an ascaris in an abscess of this kind.

Fraenkel, Orthmann and Menge state that tubal diseases in particular are put to cause an infection of the follicle and corpus luteum. The bacillus coli and anaerobic organisms play minor rôle. The ruptured follicle and corpus luteum may be penetrated also by cellular elements, such as carcinoma cells. VON MINNERS.

Von Franqué. Cure of an Ovarian Cancer with Metastases by Operation and Subsequent X-Ray Treatment (Heilung eines Ovarialcarcinoms mit Metastasenbildung durch Operation mit nachfolgender Röntgenbestrahlung). *Deutsche Gesellschaft f. Gynäk., Halle, 9. J. May*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

A patient, 6 years old an ovarian cancer the size of a head, which penetrated deeply into the broad ligament was removed April 19. A retroperitoneal metastasis the size of a fist and numerous lymph gland metastases had to be left behind. The after treatment consisted of X-raying with five erythema doses during three months, with the result that the palpable metastases disappeared. The patient has remained free from any recurrence for one year and must be considered completely cured. On microscopical examination the tumor showed the characteristics of severe malignancy well-marked mitoses polynuclear cells syncytial formations and sarcomatous degeneration of the stroma.

Steinharter. Endothelioma of the Ovary with Report of a Case of Mesothelioma of the Ovary. *Lancet-Clus 9.5.21, 84.*
By Surg. Gynec. & Obst.

The author discusses the classification of this condition, calling attention to the difficulty and confusion in the classification and nomenclature of similar tumors of the ovary. He believes that in no case reported has it been proved that the tumor had its origin from the endothelium of blood vessels. As all the tissues of the ovary are evidently of mesenchymal origin, he would classify these tumors as mesothelioma, unless definite relation to the vascular endothelium can be established.

The author reports a case, giving a brief history, the autopsy findings, microscopical description, and four excellent microphotographs. C. H. Davis.

Seeligmann, L. A Successful and Combined Method of Biochemical and X-Ray Treatment of Malignant Tumors; the Cure of Recurrent Ovarian Sarcoma with Metastases in the Spinal Column (Über eine erfolgreiche, kombinierte Methode der Chemio- und Röntgenbestrahlung malignanter Tumoren, ein schweres Rezidiv eines Ovarial-Sarkoms mit Metastasen in der Wirbelsäule geheilt). *Deutsche Gesellschaft f. Gynäk., Halle, 9. J. May*
By Zentralbl. f. d. ges. Chir. Grenzgeb.

The use of the X-ray combined with mesothorium emanations is only a local treatment which is confined to the upper layers of the new growth. It does not act upon the more deeply situated parts of the cancer and the metastases. If the present views as to the cause of cancer are considered, combined treatment constitutional as well as local, must be instituted. By such treatment it is possible to so weaken the vitality of the advancing epithelial cells in the tissues that they will succumb to the destructive action of the X-rays.

Also on the basis of the other theory which is advocated by Czerny i. e., that a parasite is the

etiological factor of cancer the combined treatment is the best. It is possible that the parasite might be killed by the intravenous injection of arsacetin just as the spirocheta pallida is overcome by salvarsan. After the destruction of the parasite or its toxins, the neoplasm can be resorbed by the X-ray.

The author has used the combined method successfully in a case of pronounced recurrence of an ovarian sarcoma with metastases in the spinal column. The tumor disappeared entirely and the metastases in the spinal column were completely cured. The bad effects attributed to the use of arsacetin can be avoided by using it in small doses and testing the sense of color every eight to ten days. Existing diseases of the eyes are a contra-indication to the use of the drug.

Ohman. Ovarian Hematoma and Ovarian Hemorrhage (Ovarierhämatom und Ovarienhämatome). *Dandena, 9.5.21, 55*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Six cases of ovarian hemorrhages are reported. The cases were treated during the last year and discovered during the course of the operation. In two cases the operation was performed if suspected extra-uterine pregnancy; in one the ovarian hemorrhage was found associated with uterine myoma; in another case an ovarian tumor was diagnosed. In the fifth the diagnosis was uncertain and an exploratory laparotomy was performed and in the sixth case chronic appendicitis was diagnosed. Five of the operations were performed by the author. All the six patients recovered. Five times a hematoma had formed and in one case the hemorrhage was just beginning and was most profuse in the region of the follicles. Each case was examined microscopically. Corpus luteum hematomata were found three times; two cases a large hematoma had formed in the middle of the ovarian stroma. Inflammatory processes were not present within the ovaries but an acute pyosalpinx was found in one case and chronic pyosalpinx in another. In the other four cases both tubes were perfectly healthy.

Ovarian hemorrhages may be classified as follows: Diffuse hemorrhages confined mostly to a follicle and its immediate surroundings without the formation of a hematoma. Hematoma formation in the ovarian stroma. 3. Corpus luteum hematoma with distinctly demonstrable luteal cells.

Surgical treatment is the best, as conservative treatment is protracted and hard on the patient. During appendectomy, especially if the appendix appears healthy attention should be given to the ovaries to discover hemorrhages or hematomata. Causative etiological factors could not be found in these cases. Björkstén.

Stetten. A Method of Ventrofixation Combined with Certain Tubal Sterilization by Means of Extra-Abdominal Displacement. *Surg. Gynec. & Obst., 9.5.21, 20.*
By Surg. Gynec. & Obst.

The author describes a method of ventrofixation combined with certain tubal sterilization. He

points out the uncertainty and complexity of the various plans suggested for tubal sterilization and emphasizes the fact that the prevention of a future pregnancy without castration is frequently indicated in the more advanced prolapse of younger women. For such cases he recommends the combined operation, the essential features of which are as follows: Through a medial laparotomy the round ligaments are ligated about two inches from the uterus, divided proximal to the ligatures, and freed from the broad ligaments at the uterine cornua by a few snips of the scissors. The peritoneal edges of the incisions in the broad ligaments are sutured. Ligatures are then passed between the tubes and the ovaries and the tubes are freed from the uterine attachments. The freed round ligaments and tubes are then brought through a stab-wound of the fascia, muscle, and peritoneum. They are drawn taut and fixed with suture to the fascia. A stitch through the scarified fundus of the uterus is included in the peritoneal suture. The muscle and fascia are closed in the usual manner.

For more absolute fixation one or two of the fascial sutures may be passed through the uterus, the peritoneum having been left open. The excess of the tubes and round ligaments is removed. The tubes are ligated and the stumps cauterized. The tubes and ligaments should be left long enough to overlap in the median line. They are then stitched to the fascia and to the structures of the opposite side. The skin is closed. The round ligament fixation part of the operation is practically the method advocated by May. The drawing of the tubes through the stab wound has the double object of reinforcing the fixation and producing a certain sterility.

The author finally suggests that this lodgment of the distal ends of the tubes outside of the abdominal cavity might be used for the purpose of producing temporary sterility.

Blumberg. A New Operation for the Sterilization of Women with Future Possibility of Restoring the Fertility (Neue Operation zur Sterilisierung des Weibes mit Möglichkeit der späteren Wiederherstellung der Fruchtbarkeit). *Berl. klin. Wochenschr.* p. 3, 1, 739.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

For the purpose of sterilization each ovary should be put into a pouch or pocket made of peritoneum between the broad ligament and the posterior surface of the uterus, so that no ovum can enter the tube which remains untouched. The free edge of the broad ligament is folded over the posterior surface of the uterus, and the ovary placed into this pocket. The free edge is then sutured carefully to the uterus so that it becomes impossible for an ovum to escape. It is usually advisable in making the pocket to anchor the ovary with temporary retention suture of catgut through the lig. ovarii also to relaxate the suture line by painting it with tincture of iodine so that no loopholes remain.

The restoration of function could be accomplished very easily by later opening of the pocket with liberation of the ovary. The author has performed the operation vaginally in six cases during the past two years, with complete success as far as sterilization is concerned. He has not had occasion to restore the function.

STERN-GESUNDH.

Fink Breutano and Planch. The Treatment of Sterility in Women (Trattamento della sterilità nella donna). *Riv. internat. di chir. per g. g. g.* 14, 3.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The chief cause of sterility in the female is gonorrhea. Primary sterility on account of disease or general conditions is difficult to investigate. Sterility due to congenital or acquired malformations of the vulva is cured by incisions or other operative procedures. Changes in the development of the uterus have but little influence if the development of the ovum is normal. Infertility is curable by electricity, massage, and dilatation. Stenoses of the cervical canal of hysterical origin, compensated by marked flexion of the uterus, must be dilated repeatedly and for long periods of time. The large number of operations devised for this trouble have resulted usually in failure. Malpositions are important causes of sterility and if correction is not obtained by means of manual replacement or pessary an intra-abdominal shortening of the round ligament is advised.

Tumors of the uterus such as myomata, are unfavorable. The author favors removing them by enucleation. Malformations of the adnexa are much less important than gonorrheal changes, therefore surgical treatment is frequently indicated, and conservatism is necessary. As secondary sterility the author considers those cases that have been pregnant once. Thirty per cent of all sterility cases are of this kind and are usually the result of gonorrhea. More rarely they result from puerperal infection.

BRUNNEN.

Hetzler, A. E. Pericolic Membrane of the Broad Ligament. *Surg. Gynec. & Obst.* 10, 3, 371, 60.

By Surg. Gynec. & Obst.

From both clinical and experimental evidence the author concludes that surgeons have taken too narrow view of the so-called pericolic membrane. In the broad ligament over varicose pampiniform plexus may be found an entirely similar structure consisting of a network of subperitoneal vessels, arranged prevaillingly parallel from below upward and connected by fine vessels with the plexus beneath. These vessels become empty when the dilated plexus is tied off and removed. In a case re-operated year after pampiniform resection, similar membrane, well marked at the first operation, was found to have wholly disappeared. An analogous formation occurs in the deep layers of the skin of the scrotum in varicocele, when vessels normally visible have become as large as goose quills.

The author has produced membranes of this kind experimentally. By careful injections of silver nitrate solution the transparent spaces in the mesentery of laboratory animals can be shown to contain minute bloodless channels which dilate and fill with blood in response to stimuli or irritation. If a bit of sterile gauze be thrust beneath the peritoneum a typical peritoneal membrane develops. The peritoneal membrane is thus of circulatory origin and is a special case of what the author has called varicosity of the peritoneum. It is not a developmental anomaly although it may affect an abdominal peritoneal fold. It does not follow severe crises, but is always due to slight, long-continued disturbances. It is to be distinguished rigidly from pseudo-peritoneal membranes, which result from cicatricial processes.

Wolff: Rare Distribution of Resorbed Dermoid Contents (Seltene Verbreitungsweise des resorbierten Dermoidinhalts). *Deutsche Gesellschaft f. Gynäk. Halle*, 1913, May.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

In a case of right-sided ovarian dermoid with extensive resorption of fat into the wall of the cyst and into the broad ligament there were also three cysts the size of a hazel nut in the mesenteric omentum of the appendix containing typical dermoid fat contents. The changes in the wall of the tumor were identical with the change occurring in the tumor walls in the cases of resorption of fat described by Schottländer, Kromer, Gentili and others. In the absence of any demonstrable rupture of the cyst wall it is assumed that the transportation of the fat occurred by way of the lymphatics.

EXTERNAL GENITALIA

Leguen: The Transperitoneal Vesicular Route for the Cure of Certain Operative Vesico-Vaginal Fistulae (De la voie transpéritonéo-vésicale pour la cure de certaines fistules vésico-vaginales opératoires). *Arch. anat. clin. de Vevey*, 1913.
By Journal de Chirurgie.

The vesico-vaginal fistula which sometimes follows hysterectomy when the bladder has been injured in the course of the operation are very difficult to treat from below by the usual vaginal route. On the other hand, the upper route is recommended in cases of this kind. The operation is then either transvaginal or transperitoneal. Leguen has combined both of these methods in a new operation, transperitoneal-vesicular which he describes as follows.

Median laparotomy is performed below the umbilicus, with opening of the peritoneum and protection of the operative field. Then the posterior bladder wall is opened exactly in the median line the incision extending into the vagina. The cut edges are held up with forceps and drawn forward towards the pubes until the entire bladder is exposed to its base.

This gives easy access to the fistula which can then be seen through the incision in the bladder.

3. The vagina and bladder are then separated with the scissors until the two structures are as independent as they were before the fistula was formed. This separation of the two walls should be carried at least a centimeter beyond the edge of the fistula.

4. Careful suture of the bladder in two layers.

5. Separate suture of the vagina.

6. Pantonirral of the injured surfaces. Leguen recommends slipping the peritoneum over the two structures in such a way as to interpose between them a veritable peritoneal cul-de-sac. He sees no danger in this interposition of peritoneum, but believes that it favors rapid healing rendering the suture firmer.

7. Closure of the abdominal wall, leaving a drain in the peritoneal cul-de-sac.

Leguen used this method in the case of a patient who had had a hysterectomy 3½ months before, developing a fistula at the base of the vagina which could be easily seen by cystoscopy and which was situated between the two ureteral orifices. The patient lost urine instantly day and night, evacuation taking place both by the urethra and the vagina. Following the operation there was some abdominal reaction with tympanites but this ceased after purgative on the third day. The vesical catheter was removed on the tenth day. At the time of leaving the hospital the 5th day the patient urinated every three hours only. There was slight escape through the vagina, but it occurred at night only and in such small quantities that the author felt justified in concluding that his procedure had been successful. M. CRICK CHRYSTAL.

Heymann, H. and Moos, S.: Experiences with the Vaginal Treatment of Gonorrhoea in the Female (Erfahrungen über Vaginalbehandlung der weiblichen Gonorrhoe). *Monatsschrift f. Geburtsh. Gynäk.*, 1913, xxviii, 613.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Gynäc.

Heymann and Moos employed arithgon in ninety-nine cases for diagnostic purposes, and in fifty-nine cases for treatment. For diagnosis 5 cases given subcutaneously was not reliable. Of twenty-one uncomplicated cases of gonorrhoea, a local reaction was obtained thirteen times and a general reaction once. Forty-five cases with complications (mostly adnexal disease) rendered a local reaction thirty-two times, and a focal reaction seven times. In thirteen cases of fresh ascending infections no reaction was obtained.

Very decided positive reactions were obtained also in non-gonorrheal conditions in no case of tuberculosis of the adnexa, in two cases of pyelitis with secondary adnexal disease, in one case of tubal abortion and in one case of ovarian cancer all diagnoses being confirmed by operative findings.

In fifty-nine cases arithgon was employed exactly

according to Brock's directions. I furious results were never observed. Local reaction only rarely. Local reactions several times, but in most cases only on administration of larger doses. General reactions are obtained most frequently. Only fifteen cases remained without fever. All others had temperature rises from a few tenths of a degree to over forty degrees. The general condition remained unimpaired. In continuation of Brock's claims, the temperature reaction is no criterion of the end result obtained.

The results observed in fresh open cases (urethral and cervix gonorrhea) are absolutely negative. In adults. Vulvo-vaginitis in children was not treated. Older adnexal disease as scarcely influenced, nine cases showing slight improvement and seven none. Better results, however, were obtained in acute ascending distal disease. Absolute cure in 7 per cent of the cases, decided improvement in 7 per cent, slight improvement in 4 per cent and 30 per cent none whatever. The subjects' improvement in 3 patients was good, in 4 slight. There was no improvement in 6.

Most decided improvement occurred in joint complications. Ectopic cases marked in three and no improvement only once. In this class of cases the improvement was much more rapid than could be obtained by other methods. From these results it can be seen that the radium treatment offers no better results than the former conservative methods. The combination of both methods would probably give the best results. *Brown*

MISCELLANEOUS

Weltzel. X-Ray Therapy (Röntgenstrahlen-Therapie). *Deutsche Gesellschaft für Gynäk. u. Geburtsh. 9. J. May*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The technique for X-ray treatment is minutely described. The thorax rays through 8 different places using a tube 7.9 Becquerel-Walker and diameter of 7 cm. with 4 to 5 milliamperes per second, at a distance of 3 mm. and a focal distance of 8 cm. Two séances of 4 exposures each on two succeeding days form one series. The dose is measured by the Klenböck method and amounts to 80 per series. The rays are applied only through the anterior wall. Ten out of twenty-one cases of myomata became amenorrhoeic. In one case the myoma grew necessitating its removal. The tumor was not malignant. Amenorrhoea as obtained in 1 month on average. The age of the patient has no influence on the time. For full course of treatment 500 to 600 = 7 series are required. It is continued until the menses have remained absent for 8 weeks. A decrease in the size of the tumor occurred in 5 cases, twice from the size of man's head to that of fist or goose egg. The symptoms disappeared in 5 cases, while the tumor remained unchanged. In 5 cases of metropathic hemorrhage, menorrhoea resulted. On an average in 4 months

500 to 300 = 3 to 4 series were required for complete cure. In half of all the cases, symptoms of climacterium appeared. Disturbances of the bladder or bowels were not observed.

If wrong diagnoses can be avoided, if patients with irregular hemorrhages are subjected to diagnostic curettage before the beginning of the X-ray treatment, and if the patients are continuously kept under careful supervision during the treatment then a complete cure in clinical sense may be obtained by the X-ray treatment in cases of myomata and hemorrhagic metropathia without danger to the patient.

Fifth. X-Ray Treatment in Gynecology (Röntgenstrahlentherapie in der Gynäkologie). *Deutsche Gesellschaft für Gynäk. u. Geburtsh. 9. J. May*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Fifth describes the application of the X-rays as used by Graessner, the Cologne Academy and the complications which he observed in 4 cases treated by the rays. As such, he mentions frequent desire to urinate, nausea, vomiting and pigmentation of the skin. The results of treatment are as follows: In metropathia, 10 per cent were improved and 80 per cent cured in 10 sittings, 5 per cent unimproved, 5 per cent improved and 80 per cent cured. Two cases each of myomata and metropathia began to bleed again, necessitating further rayings. Four cases of myomata treated by the rays were afterwards for various reasons treated surgically. In metropathia curettage should precede the raying to avoid hemorrhage at the first menstrual period following the commencement of the treatment.

Nausea and vomiting are probably caused by the inhalation of the ozone produced during the treatment. It is intended to decompose the gas by catalytic methods before it is inhaled.

Rung. X-Ray Treatment in Gynecology (Röntgenstrahlentherapie in der Gynäkologie). *Deutsche Gesellschaft für Gynäk. u. Geburtsh. 1913. May*
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Of 20 cases of metropathia, 5, or 25 per cent, became amenorrhoeic and 4 were subsequently operated. Of 90 cases of myomata, 86, or 95 per cent, became amenorrhoeic and 4 were operated. The cause of the negative result could not be determined but was probably due to a submucous location of the tumors. A decrease in the size of the tumors was noticed in about 4 per cent of the cases in which amenorrhoea was produced. The result in cases of prolapsus uteri were very good and in 7 cases of dysmenorrhoea doubtful, about 43 per cent of the latter being cured. The raying of two cases of distal inflammation resulted at first in profuse menstrual bleedings but finally in amenorrhoea.

The symptoms of change of life are not any more severe than those of the normal physiological climacterium. The author finally reports the immediate accessory symptoms produced by the raying and describes the technique. On an average 3 to 4 series are neces-

mary in metropathia, and 5 to 6 i myomata, for the production of a amenorrhoea

Heilmann. X Ray Treatment (Röntgentherapie)
Deutsche Gesellschaft f. Gynäk. u. Geburtsh. 9. 3. May
 By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäc.

This is a report of gynecological X ray treatment at the Breslau clinic. Myomatous uterine hemorrhages and isoperable, as well as postoperative cases of cancers were treated. The time elapsed since the raying of the latter is too short to permit the handing of a report. Forty cases of myomata and metropathia hemorrhagica have been treated, and with the exception of one case all were cured. In the great majority of the cases amenorrhoea was produced, and in a few cases only an oligomenorrhoea. In the unimproved case, suspicion of malignancy arose during the treatment and the latter was stopped on that count. Finally a description of the technique is given.

F. H. O. O. Experimental Contributions to the Physiology of the Female Genitalia (Experimentelle Beiträge zur Physiologie der weiblichen Genitalorgane). *Deutsche Gesellschaft f. Gyn. u. Geburtsh.* 9. 3. May

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäc.

Fellner injected a large number of sexually immature rabbits and guinea pigs with alcoholic etheral extracts of placenta, ovary and testis. The injections, which were in part subcutaneous and in part intraperitoneal, were carried out over a long period of time.

Laparotomy and sections showed that a marked hypertrophy of the uterus resulted. The muscular layer was hypertrophied, the mucosa decidedly thicker and higher the epithelium, normally flat, grew higher and cylindrical, and became dotted with vertical nodules. The vagina became larger and wider the epithelium assumed the characteristics of the epithelium in pregnancy. The mammary gland enlarged four or five times its normal size.

Very similar results were obtained also with the male animals. The suprarenals were greatly hypertrophied the kidneys showed parenchymatous nephritis with much albumen excretion. Even when placental extract from the same species was used, similar but much less marked findings occurred. The same results were obtained with preliminary castration before injection.

The substance used is soluble in salt solution, 70 per cent alcohol and ether. It is thermostable and therefore can be sterilized completely. Similar results were obtained with extracts of the amniotic membrane. Much weaker in effect were the results following injections of alcohol-ether extracts of corpus luteum taken from the ovaries of non-pregnant cows. The same effect was obtained with alcohol-ether extracts of ovaries of pregnant cows, whereas similar extracts of the uterus of pregnant animals gave only slight reaction, and those of the uterus

of non-pregnant animals and of ovaries not containing corpus luteum of non-pregnant animals gave none at all. Extracts of testicles produced the same result as the extracts of the ovaries, whereas brain extract produced none at all. If cholesterol and cholesterol esters are removed from the extract the effect of the extract is not altered. As to whether we are dealing with an internal secretion of the placenta, the author is unable to decide at the present time.

Newman. Cases Illustrating Certain Urinary Conditions in Women Associated with Frequent or Painful Micturition. *Clin. J.* 9. 3. 1911, 93 By Surg. Gynec. & Obst.

Newman gives a very interesting discussion of the most important urinary disturbances in women. *Cystitis of pregnancy with its results.* This form of inflammation of the bladder is often overlooked at its onset as the symptoms are attributed by the patient to her condition. Another danger arises from the early disappearance of acute symptoms in many cases, and care is not taken to free the bladder from infective organisms. These patients suffer from inflammation of the bladder and the neck of the urethra. The author irrigates with boric acid solution twice daily and after a week has swabbed the urethra with pure phenol, and afterward with an alkali to stop the action of the acid. Cocaine bougies are introduced to relieve pain.

Early renal tuberculosis is often not accompanied by pain, frequent micturition or nocturnal incontinence are the only symptoms. Vesical irritability and, after time, pain, also become features. When the kidney is normal, the orifice of the ureter is also normal, and when one ureteral orifice is normal while the other is altered, the renal lesion is on the side of the morbid ureter.

Early tuberculosis of the bladder the most characteristic changes are hyperemia of the floor and neck of the bladder, associated with small nodules beneath the epithelium of the mucous membrane of the bladder. The author reports a case in which he cured the caseous deposit on the floor of the bladder through the urethra. The patient was also treated with tuberculin R.

Lesions of the neck of the bladder the trigone and the urethra cause frequency of urination and often incontinence. He reports a case in which he twice applied his phenol treatment. In other cases his treatment consisted of irrigation with the permanganate and chlorate of potassium and the instillation of weak effluvia solution. In a severe staphylococcus infection of the bladder he employed suprapubic drainage and irrigated with boric acid and filtrate of aurine (lactic acid cultures).

Albugo papyli in the urethra are rare, but may cause considerable irritation. They may be removed with curette or snare.

A case is reported in which movable right kidney caused severe pain at the end of micturition. It was cured by nephrothoraphy.

C. H. D. VAN.

Bauerstein A. Th. Atrial of Post-Operative Infection of the Female Urinary Tract (Über die Ausbreitung der postoperativen Infektion in den Harnwegen) *Zisch f. gynäk. u. Geburtsh.* 9, 3, 14.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Grenzgeb.

After thorough microscopical investigations the author comes to the following conclusions: The chief source of infection is the urinary bladder in the urethra, from which organisms reach the bladder either as result of catheterization or of spontaneous ascending infection. These lead to an inflammation of lesions produced during the operation. The migration of organisms from the outside of the bladder through the bladder wall occurs only rarely and then only in severe infections of the surrounding tissue. When it does occur, however, the organisms are rapidly walled off by infiltration and granulations as well as by the lymph serum which runs in the opposite direction. The same conditions hold in cases of infection of the ureters. The kidneys are infected either from hematogenous source or through the spontaneous ascension of organisms from the bladder.

The principal kinds of bacteria involved are the staphylococci, streptococci and the colon bacilli, the latter usually in combination with pyogenic cocci. Avoidance of catheterization is desired wherever possible. The preferred therapy is the prophylactic injection of boroglycerin and pituitary extract. In those cases in which the catheter is indispensable irrigation with collargol should be resorted to as soon as cystitis begins to develop. *ILABY*

Alzer A. The Use of Serum in Obstetrics and Gynecology (Über die Serumverwendung in der Geburtshilfe und Gynäkologie) *Med. Cor. Bl. d. schwed. Arzt. Lesevers.* 9, 3, 111, 15.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

By means of series of successfully treated cases of dermatitis, herpes, urticaria etc. the author proves the correctness of his proposal to treat the toxæmia of pregnancy with the blood serum of healthy pregnant women. If the result is negative there must be an accidental dermatitis present or the serum injected is not normal. If the latter case serum from another pregnant woman must be employed. Hyperemesis gravidarum, nephritis of pregnancy, icterus and eclampsia are favorably influenced, the latter especially by epidural injection. Eclampsia is rare in Württemberg, but in the few cases treated the results were so striking and rapid that they offered considerable encouragement for further investigations. The same is true of eclampsia neonatorum.

The author examined the serum of puerperal women who, in spite of the fact that they had hemolytic streptococci in their blood, remained perfectly well throughout the entire course. He describes the three following cases. Severe general sepsis. After 1 injection decided improvement was

noted. The associated peritonitis, however, could not be checked. Sepsis with diarrhoea. The patient had received two injections of serum from convalescing puerperal sepsis case when improvement set in. S. Coliformis with diarrhoea and exanthema. This patient, as given serum from patient who had a bacillus coli pyelitis. Improvement occurred also in this case. In all of the cases immediate improvement occurred in the general condition of the patients, with decrease in temperature and pulse cessation of diarrhoea, etc. In pyæmia the serum apparently is not of much value, as it cannot attack the organisms within the thrombi. Pregnancy serum was tried also in severe anaemia, chloroma, and especially in anaemia due to bleeding fibroids. In the latter cases it aided the patients over until operation could be performed. *LACRANIO.*

Alzer A. The Significance of Infantilism in Obstetrics and Gynecology (Die Bedeutung des Infantilismus in Geburtshilfe und Gynäkologie) *Deutsche Gesellschaft f. Gynäk. Heile.* 19, 3, May.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

Infantilism the first menstrual period is often delayed. The women are often and wrongly thought to be genitally diseased and are treated gynecologically without benefit. Menstruation is frequently associated with dysmenorrhoea so that the working capacity is disturbed. In marriage, lessened sexual desire and dyspareunia lead to a true martyrdom and the marriage often remains childless. If conception results abortion frequently follows. The disturbances of pregnancy are often increased, all possible but harmless abnormalities being treated for this in vain. During labor, ead. pains, rigidity of the cervix, decreased relaxability of the soft parts, narrow pelvis etc. indicate mechanical hindrance lateration of the soft parts, and infection.

Resistance to infection is lessened on account of the hypoplastic condition of the circulatory system. For the same reason anaesthetics are especially dangerous in such cases. The ability to nurse is usually defective. The poorly developed perineum has predisposition to prolapse, but the retroflexion of the uterus which is frequently observed is not the cause of the patient's numerous complaints. Treatment for it is unnecessary and often disadvantageous. A tortuous tube predisposes to extrauterine pregnancy. A deep cul de sac may cause diagnostic difficulties in intra or extraperitoneal rupture of tumors.

When infantile stigmata are associated with inflammatory adnexal disease of doubtful origin tuberculous may possibly be the etiological factor. When associated with ovarian tumors it may suspect embryonata, and when tumors are present in the pelvis, displacement of the kidney into the pelvis should be thought of. Infatill women are congenital invalids, often simulating gynecological disturbance without being genitally diseased.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Markoe and Wing. The Thyroid in Pregnancy.
Bull. L. J. Hosp. N. Y. 3, 1, 96.
 By Surg. Gynec. & Obst.

After examining 60 cases the authors conclude that the relation of the thyroid to the physiology and pathology of pregnancy shows distinctness in its clinical manifestations which is puzzling and difficult to analyze. The symptoms of hyperthyroidism develop during pregnancy usually as a decided diminution after confinement and with succeeding pregnancies the symptoms are not so severe. The management of pregnant cases showing thyroid enlargement with or without hyperthyroidism, is directed toward

1. Open air treatment and the improvement of the hygienic surroundings.
2. A avoidance of nervous strain and worry
3. Maximum of sleep and rest
4. Simple diet and regulation of the bowels
5. Tonic medication
6. In some cases administration of the syrup of hydrochloric acid.

In cases in which the symptoms are severe the authors advise absolute rest in bed.

ROBERT T. GILLMORE

Landsberg. The Significance of the Ductless Glands for Metabolism During Pregnancy (Die Bedeutung der endokrinen Drüsen für den Stoffwechsel in der Schwangerschaft). *Deutsche Gesellschaft für Gynäk. u. Geburtsh.* 3, 1, 17.
 By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The ovaries and thyroid gland were extirpated in pregnant bitches and the metabolism of hunger was studied before and after the operations. It was found that in comparison to normal conditions slight increase in the protein metabolism occurred during pregnancy after oophorectomy. A decrease in the nitrogen excretion was observed after the injection of an extract of the true corpus luteum. The decrease in the nitrogen excretion was not so marked after thyroidectomy in the pregnant compared with the non-pregnant. The hyperplasia of the thyroid in pregnancy should not be construed as causing a hyperfunction in metabolism. This also explains the retarded metabolism after oophorectomy. The thyroid gland was removed in two cases in which pregnancy continued to exist for some time after oophorectomy. A surprising decrease of the thyroid gland after preceding oophorectomy was found. Marked differences were also seen on microscopical examination. Metabolism was more decreased than after thyroidectomy.

Examinations of the phosphorus and calcium excretions were undertaken but the results obtained so far do not permit us to draw a conclusion. Further investigation will be made. The investigations made so far permit the statement that the function of the ductless glands during pregnancy shows important differences from that during the non-pregnant condition.

Horsley J. S. Abdominal Pregnancy with Living Child. *Surg. Gynec. & Obst.* 3, 1, 17, 58.
 By Surg. Gynec. & Obst.

Horsley reviews the literature on abdominal pregnancy with living child and records, with his own case one hundred and five others. There are six instances in which the mother recovered and the child and the mother were living and in good health a year after the operation. In his own case, which was one of these six, the pregnancy was apparently at full term. The woman had been in labor for some time and was exhausted. Her pulse was 40. The child and placenta were enveloped in the membrane which derived its nutrition from the left broad ligament. The uterus was about twice its normal size. The child was delivered and the placenta and the placenta were removed. The patient and child made a satisfactory recovery and both were living and well more than a year after the operation.

Schewachoff S. W. Cardiac Changes During Pregnancy (Zur Frage der Veränderung des Herzens während der Schwangerschaft). *Arch. d. Geburtsh. u. Gynäk. Prof. Rüdich, St. Petersburg.* 3, 1, 3.
 By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author examined the size of the heart in puerperae on different days (10 part) by means of Röntgen rays and also by means of krentonography (focal distance 100 cm.) H used a Bauer tube. In order to bring the anticathode against the middle of the heart each time employing the same central rays each time, a special attachment was constructed. Exposures were made during the middle phase of respiration and when the stomach was empty. The patient was placed horizontally in bed. The time of exposure was not less than two seconds in order that the exposure might be made during the diastole. The measuring technique is described in detail.

From the data in the table that accompanies the original article it is evident that the size of the heart and the influence of age, size, weight and number of births were different in all of the ten cases examined. In nine cases the heart did not

crease in size during the puerperium. In one case in which there was dilatation of the cardiac area up to 1 cm occurred. From his observations the author concludes that the normal heart does not become enlarged during pregnancy and is not dilated. As to whether there is a minimal hypertrophy the microscope alone can tell.

Re. 109

Walther, The Relations of Cardiac Disease to Pregnancy Labor and Puerperium (Die Beziehungen der Erkrankungen des Herzens zu Schwangerschaft Geburt und Wochenbett). *Deutsche Gesellschaft f. Gynäk. Heile, 9. J. May*

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb. Consider the high degree of certainty with which aortic aneurism is recognized by means of the orthodiagram, the author feels justified in discussing the relation of cardiac disease to pregnancy labor and puerperium especially aortic stenosis and its result—aneurism of the aorta. Among the 35 cases of alvular defects which are observed in the past 10 years during pregnancy labor and puerperium there were five which presented the picture of aortic insufficiency. In three the orthodiagram revealed broader aortic shadow two of the latter also had left-sided recurrent laryngeal paresis and hoarseness. Two of these patients gave positive Wassermann. In two patients clinical findings of aortic insufficiency were present. In the third case the aortic change (noted especially the aortic descending aorta (roster report) and the aorta as dilated to sacculus aneurism. The clinical findings noted by percussion and auscultation are however much less marked.

The course of the pregnancy and labor as different in the three cases. In the case in which the aortic shadow as narrow and and a high no pressure symptoms or dyspnea existed no cardiac disturbances set during the entire pregnancy until a few hours before delivery. Dyspnea made its appearance 5 hours before delivery and for that reason the patient entered the hospital. Labor and the puerperium however, went on without any serious disturbance of the circulation. In the second case, which the widest aortic shadow as present the patient during the eighth month commenced to complain of severe pains in the back and left side with dyspnea and cyanosis. The interest of the child the patient as treated symptomatically bringing the interruption of pregnancy as near to term as possible. Suddenly rupture of the aneurism and death occurred. Immediate Caesarean section however failed to revive the asphyxiated child. As soon as rupture occurred contractions of the uterus were perceived. In the third case with the medium-sized aortic shadow, pains in the chest dyspnea and hoarseness developed in the middle of the last month of pregnancy. As labor set in, dyspnea, oppression of the chest and cyanosis became aggravated and as the blood-pressure was not double the normal at the beginning of labor Caesarean section was performed under lumbar anesthesia.

From the literature he concludes that in aneurism of the aorta pregnancy rupture of the aneurism usually occurs during the latter half of pregnancy or during labor. It is highly probable that the rise of blood-pressure incident to uterine contractions during pregnancy and labor is the cause of the rupture. The author's conclusions are the following: That a pregnancy in a patient with an aortic aneurism should be terminated by Caesarean section under lumbar anesthesia and that sterilization should be performed at the same time.

Gröné, Pregnancy and Labor in Organic Heart Disease (Om graviditet och förlossning vid organiska hjärtsjuk). *Ålän. Soc. Litteral. Stockholm, 913. 2. 69.*

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author investigated the material of the hospital in Malmö. Fifty-four labors are observed. Forty-two women who had cardiac disease. In cardiac insufficiency 70 labors occurred in 105 women three labors in one patient and five labors in another. Three died. Fifteen women had mitral insufficiency 23 mitral stenosis plus mitral insufficiency aortic insufficiency and aortic and mitral insufficiencies. In 34 cases compensation was good, in 20 poor. In the latter 6 were near compensation. The per cent of pregnancy occurring in women with cardiac disease was 5 per cent. In 87.5 per cent no disturbance of compensation occurred during pregnancy. Concerning the influence of heart disease the author concludes that the importance generally ascribed to it as causing spontaneous abortions is largely overestimated. Labor was spontaneous in 5 cases and operative in 14 (forceps 1 times, manual extraction twice, Caesarean section once). The uterus as emptied 9 times with forceps and dull spoons in 10 labors. Not once did a severe post-partum hemorrhage occur.

Abortion should not necessarily be forbidden in these cases. In the literature the author found an average mortality of 10 per cent in pregnancies with heart disease. The mortality as 1.6 per cent in cases collected by him. It is not any more dangerous to go through labor with well compensated valvular disease than under normal conditions. Women suffering from heart disease could be placed under the observation of a physician during the last half of pregnancy. The termination of labor should be left to nature. Interference should be resorted to only in cases where the expulsion is too protracted and the patient is put under great strain by the labor pains.

Profound ether narcosis seems not to be contraindicated in uncompensated heart disease. Positive advice as for the induction of premature labor can hardly be fixed. Each case must be treated strictly individually. Premature labor was induced only once with fatal result for mother and child. For the induction of premature labor the author recommends rupture of the sac and placenta. In uncompensated cardiac disease induction can be in

question only in the beginning of pregnancy and then only in multiparae. The latter cases should also be treated individually. The induction should consist in tamponing the cervix, uteri and vagina and, if possible, in rupture of the membranes. Evacuation of the uterus is accomplished with abortion forceps and dull spoon. Finally the author states that the prohibition of marriage is not justifiable in all compensated cardiac disease. In cases of uncompensated cardiac disease or those such as new the limit of compensation each and every case should be judged individually. **Bjorkgren.**

Van der Hoeven, P. C. T. Myoma Operation During Pregnancy. (*Myomectomie in de zwangerschap*). *Verh. Medisch. v. wetensch. v. Verenz.* 9, 3, 4, 285.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author gives a short résumé of the operative treatment of fibroids during pregnancy giving case histories and references to the most important literature on the subject. He then reports three of his own cases in which pregnancy was not interrupted after enucleation of the fibroids and living children were born at term. The prognosis is very favorable for both mother and child. **Stratz.**

Van de Velde, Myoma Retroflexion, and Pregnancy. (*Myoma, retroflexio in de zwangerschap*). *Verh. Medisch. v. wetensch. v. Verenz.* 9, 3, 4, 300.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author reports three cases of pregnancy complicated by myomata and retroflexion. In the first case the myoma was situated in the anterior wall of the uterus and was nucleated during the fourth month of pregnancy by laparotomy, bortion followed three days later. There were no further complications. In the second case the myoma was situated in the cul-de-sac of Douglas. The uterus rose out of the pelvis in the course of the pregnancy. Spontaneous delivery of a living child resulted after the tumor had been lifted out of the pelvis manually. In the third case the pregnancy was complicated by peritoneic symptoms as the tumor had grown from the posterior uterine wall and was adherent in the cul-de-sac. At term Cesarean section was performed and a living child delivered. The uterus with the placenta and fibroid was then amputated supravaginally *en masse*. The recovery was uneventful. **Stratz.**

Kosmak, The Diagnosis and Treatment of Eclampsia. *Bull. Lyrup-Hosp. N.Y.* 1912, 30.

By Surg., Gynec. & Obst.

Considerable stress is laid upon the diagnosis of the premonitory signs, as the prophylaxis is of such great importance. Each patient should be warned by the physician of the significance of headache, slight nausea, dizziness, and visual disturbances during the last two months of pregnancy. The author calls particular attention to those cases which have toxemia without convulsions.

When the patient is seized with a convulsion he gives immediately $\frac{1}{4}$ grain of morphine followed by the administration of cathartics and enemas together with blood-letting in suitable cases. He warns against the indiscriminate use of chloroform and believes that many deaths have resulted from chloroform poisoning. Diaphoresis is encouraged by wrapping the patient every two or three hours in a blanket rung out of hot water until perspiration is free. In the absence of edema the blood-stream is diluted by colonic irrigations with normal salt solution, not less than 4 gallons at a time with a temperature of 5° F. Eclampsia comes on between the seventh and ninth month and if labor does not proceed spontaneously pregnancy should be deliberately terminated without dangerous haste. Where the pulse is of high tension viratrum viride and nitroglycerin are used.

I. Kosmak's summary he urges:

1. The certainty of diagnosis.

2. Governing the treatment by the signs and symptoms of each individual case.

3. Conservative sedative and eliminatory measures before radical operative measures.

4. One convulsion should never decide the surgical interference. **ROBERT T. GILLMORE.**

Schlossberger, A. Two Cases of Eclampsia Cured by Means of Hypophyseal Extract (Zwei Fälle von Eklampsie geheilt mit Hypophysenextrakt). *Deutsche und Österreichische* 9, 3, 222, 223.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Case. The patient forty-two years old was at term in her fifth pregnancy. The cervix was closed and convulsions had been repeated. The urine showed five per cent albuminuria, 11 cc. pituit gland and 0.0 gm. pantopon was injected. Convulsions ceased after one and one-half hours and consciousness returned after three hours. A second dose of pituit gland was given. Spontaneous delivery occurred five hours after the first injection. Recovery was complete. Case. The patient was twenty-three years old and six months pregnant in her second pregnancy. She was unconscious having repeated convulsions and anuria. Injections were given as in Case. After forty-five minutes the convulsions ceased and diuretics began in three hours. A second injection was given and spontaneous delivery occurred in five hours. The puerperium was normal. **HARRISON.**

Routh, A. Observations on the Toxæmia of Pregnancy and on Eugenia from the Obstetric Standpoint. *Lancet* Lond., 9, 3, 1229, 63.

By Surg., Gynec. & Obst.

The author gives a brief review of the recent work on the toxæmia of pregnancy, serum diagnosis, the relation of the organs of internal secretion and their genital functions, and lactation.

In discussing eugenia from the standpoint of obstetrics he says: The chief aim of those seeking to endow motherhood should be to give every

mother an assurance of security and well-being during the whole time of pregnancy labor and the puerperium, each of which is to her a period of anxiety and stress.

Eugenics should begin before birth, not afterwards. When syphilis is suspected small doses of mercury given during pregnancy often result in a healthy child. It has been computed that if women were properly examined in pregnancy half the still-born children would be saved.

Routh believes that the registration of births should be compulsory not only after viability but also for every period of pregnancy. C. H. D. via.

Carr Cesarean Section. *IF Va. M. J.*, 9, 3, vol. 1.
By Surg. Gynec. & Obst.

The author gives a brief history of this operation, and reports that he has performed six Cesarean sections without a death. Three of his patients had contracted pelvis. In one case where the measurements were carefully taken the true conjugate was 6½ cm. Two patients were girls under sixteen years of age who had been in labor sixteen hours, with only partial descent of the heads, and the cervix partially dilated and rigid. A fibromyoma in the sixth case made a modified Porto operation necessary.

The author believes that with the present low mortality and low morbidity Cesarean section should be considered in every case of difficult labor provided a skillful surgeon and good nurse are to be obtained. C. H. D. via.

Hartmann, K. and Loschcke, H. The Uterine Scar Following the Suprasymphysal Extra-peritoneal Cesarean Section (*Die Uterusnarbe nach suprasymphysärem extra-peritonealem Kaiserschnitt*). *Gynäk. Rundschau*, 19, 2, 11, 154.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynäk. Hartmann had occasion to extirpate, during the fifth month of pregnancy, uterus which he had previously performed to suprasymphysal Cesarean sections (the oblique incision of Frank) one incision to the right, and one to the left of the median line.

At the time of operation the relations were normal, no adhesions of any kind being present. The scars could not be recognized macroscopically, microscopically five connective-tissue strands with intermingling muscle fibres could be seen. In the cervical musculature alongside of the scar there were cystic cavities filled with mucus. These cavities were lined by cervix epithelium and were probably epithelialized stitch canals. Outside of these cavities there was an accumulation of foreign-body giant cells surrounding unabsorbed catgut rests. The anterior wall of the cervix was decidedly thinner than the posterior due to the bilateral scars.

Hartmann advises employing absorbable suture material and the avoidance of including the mucus in the stitches. No adhesions will result if primary union occurs and the scars will not weaken in repeated pregnancies. Bama.

Van der Hoeven. The Chances for Subsequent Pregnancy after the Classical Cesarean Section (*De kans op zwangerschap na de klassieke sectio caesarea*). *Nederl. Maandschr. verlosk. en gynaecol.*, 9, 3, 1906.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynäk.

The author investigated the subsequent history of women who had been subjected to the classical Cesarean section at the Leyden clinic during the years 1896-1900.

There were 4 cases, one of which died 1 year after the operation of pulmonary tuberculosis one could not be found, and five were unmarried. Two of the remaining seventeen had had subsequent abortion, and only nine of the forty-four had given birth to children. Six of the latter had delivered one child, one had delivered two, one had delivered three and the last one had delivered seven children.

The indications for the operation had been narrow pelvis, eclampsia, etc. Six of the seventeen had had subsequent Cesarean section five of the six then remained sterile. The author thinks that intra-abdominal adhesions are the cause of the low fertility of these women, and is in favor of the vaginal (cervical and transperitoneal) section. Bama.

Beckmann, W. Cesarean Section Performed for Vaginal Stenosis Following an Operation for Vesico-Vaginal Fistula (*Kaiserschnitt wegen Scheidenstenose mit vorausgegangener Blasenfisteloperation*). *Zeitschr. f. gynäk. Urol.*, Leipzig, 19, 2, 1906.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynäk.

The author claims that in Russia vaginal stenosis following an operation for vesico-vaginal fistula is quite commonly an indication for Cesarean section.

A patient, twenty-seven years old, acquired scar stenosis of the vagina following the first pregnancy. The contraction was situated about the middle of the vaginal canal and a catheter introduced through it entered the bladder. Operation was performed by tearing the scar tissue and turning the fistula, whereupon cure was effected. Shortly after a pregnancy occurred, the patient however not entering the clinic until three days after the onset of labor and after rupture of membranes had occurred. The child was dead. The lower part of the vagina was markedly contracted the lumen being about the size of a lead pencil. The cervix was not palpable. Pulse and temperature were normal. Classical Cesarean section was performed and she was delivered of a macerated fetus weighing 1300 gm. A supravaginal amputation of the uterus was performed for the purpose of sterilization. The recovery was uneventful. Bama.

Lange. Suprasymphysal, Cervical Cesarean Section (*Zur Frage des suprasymphysären, cervicalen Kaiserschnittes*). *Monatsschr. f. Geburtsh. Gynäk.*, 9, 3, 1906, 66.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. d. Gynäk.

Lange reports twenty-eight cases treated by this method. He gives also his experiences with it in

forty-two cases of contracted pelvis. The periton was performed transperitoneally (a) 1 cases where last was necessary on account of weakness of the foetal heart sounds, (b) in cases where previous extraperitoneal section had been performed and the presence of firm adhesions was suspected and (c) in cases which were operated upon abortively after the onset of labor. Otherwise in twenty-four cases the extraperitoneal method was employed, but its completion only in eighteen. Of the total number of forty-six had been examined previously outside of the clinic. In fourteen instances the operation was performed before the membranes had ruptured or within an hour afterwards but the rest much longer time intervened, in one case sixty-one hours.

The maternal mortality was very low only one case dying from sepsis. One of the children was born deeply asphyxiated and could not be resuscitated. No accidental injuries occurred. The number of cases of atony was rather high (3) in spite of the subcutaneous injection of an active ergot preparation shortly before operation. In six cases tamponade of the uterus was necessary, in seven adrenalin injected into the uterine musculature was sufficient. The operation was performed four times for the second time. In two of these cases the old uterine scar was firm in the other two it was thinned. In one case, however, the scar resisted contractions for thirteen hours until complete effacement and dilatation had occurred. In the other case the scar resisted contractions for six hours without rupture. A temperature of over 38° C. occurred twelve times during the puerperium, but in most instances it was transient, lasting for only a few days. One prolonged case of sepsis ended fatally.

7 cases

Kitner O. Cesarean Section of the Dead and the Dying Woman (Kaiserschchnitt an der toten und sterbenden Frau.) *J. allg. med. Berlin, St. Petersburg* 9 3, xviii, 399
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

The author reports six cases of Cesarean section, four on dead, and two on dying women. Among the former there were two cases of eclampsia, myocarditis cordis with marked pulmonary edema and hyperemia, and one marked kyphoscoliosis. The operation was performed within the ten minutes post mortem. Usually Kitner was forced to operate with uterine instruments. All of the children were in a more or less severe asphyxia, but were revived.

The two operations upon dying women were for severe eclampsia. The children were born alive. The mothers died within two to four hours after the operation. Kitner is in favor of Cesarean section in all cases of dead women with viable or living children. It is much more difficult, however, to set the indication of the dying, and the moment of approaching death is determined with difficulty. Cesarean section should be performed in all cases except those in which the mother is conscious and refuses the operation. Nearly always the child is

saved, and occasionally the mother also. The section on the dead should be performed in all cases under aseptic conditions just as on the living.

GASPERA.

Veit J. The Technique of Cesarean Section (Zur Technik des Kaiserschchnitts) *Zentralbl. f. Gynäk.* 9 3, xviii, 73
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Grenzgeb.

Cesarean section to-day is a harmless procedure. Schetz advises the use of the transperitoneal instead of the complicated extraperitoneal Cesarean section. Veit also recommends the classical section for general practice, his reason being that on account of its relative simplicity it can be performed more easily by inexperienced operators. Veit places his patient in the high pelvis position which brings the uterus out of the pelvis. He makes one third of the incision above the umbilicus and two thirds below it. The general peritoneal cavity is walled off with towels, and the uterus incised transversely. An assistant then forces the uterus upward so that the transverse incision lies above the abdominal incision. The placenta and membranes are next removed and the uterus is sutured with silk and a second zero-serous suture of catgut. After the removal of the pads the uterus is allowed to drop into the pelvis. A extreme anteversion of the uterus is to be avoided, as it may cause rupture. In the manner described the uterus can be emptied without allowing escape of its contents to enter the peritoneal cavity. The author has operated upon forty patients by this method with good results for the mother in every case.

HORN.

Pobedinsky N. The Results Obtained with Cesarean Section in Russia During the Last Twenty Five Years (Die Erfolge des Kaiserschchnitts in Russland in den letzten 25 Jahren) *Zentralbl. f. Gynäk.* 9 3, xviii, 157
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Grenzgeb.

Prior to 1885 all but three cases of Cesarean section performed in Russia ended fatally. Since then 446 operations have been performed including those done for relative indications. Between 1885 and 1900 forty-two operations were performed, principally for contracted pelvis, with a mortality of forty per cent due to bad asepsis and unfavorable conditions. Between 1900 and 1909 there were eighty-four cases, mostly for contracted pelvis, with a mortality of six per cent. The improvement in results was due to better asepsis. Between 1900 and 1909 there are recorded 370 cases, principally for contracted pelvis but also for scar contraction of the vagina, and for tumors. Recently it has also been performed for eclampsia, placenta previa, stenosis of the cervix and for transverse presentation. The mortality was 7.5 per cent but only 3.2 per cent if eclampsia and malignant tumors are excluded.

Frequently bad conditions were met, such as examinations by ignorant and dirty midwives, other operative procedures, presence of temperature pre-

eding the operation, and early rupture of the membranes. Blace and the extraperitoneal methods have been employed but abandoned, as they proved illusory. Incision through the placenta.

Offers a good prognosis. Simplicity of technique is the keynote and the little danger of bladder injury. Dead children are found nineteen times in 300 cases. Live of both however the relation. The operation performed the same patient a third cases with one death.

Resection of the tube employed sixty nine times. In six years for sterilization the indications being repeated (caesarean section) for tuberculous and osteomalacia. In the obstetrical clinic at Moscow (caesarean section) the living was never performed before 85% because of absence of blood. The result was poor. In other clinics and poor results. Between 85% and 90% contracted pelvis are found but at three per cent of the cases. These are prime patients treated by permat. Induced labor and cesareanotomy. The first (caesarean section) as performed 85% with good result. Since the third case operations have been performed best for contracted pelvis. A maternal mortality of nine per cent and fetal mortality of 10% recorded. Out of the line there are fourteen (caesarean section) performed. Now between 85% and 90%.

W. H.

LABOR AND ITS COMPLICATIONS

P. I. A. K. Some Aspects of Labor Mechanism in the Female Pelvis. *Boston M. & S. J.* 1914. 100 p. 16.

The author states that he finds from study of the female pelvis in cadavers and skeletons that the perineum of the sacrum does not project material distance into the inlet. He believes with Spengler, Dorland and DeLee that the majority of vertex presentations engagement in the transverse diameter of the inlet is the rule.

He believes that in high forceps operations the axis tract no blades may be applied antero-posteriorly to the axis of the head provided the perineum is a dilated perineum. The application of very little force is necessary in using the head into the pelvis in 3 cases. Such the operation is justifiable, provided the soft parts are properly dilated.

L. H. D. M.

Lehl. The Treatment of Frontal Presentation (Die Behandlung der Vorderhauptlage). *München med. Wochenschr.* 1914. 800.

By Zentrall. d. ges. Gynäk. Geburtsh. d. Grenzgeb. This rare abnormal presentation is found 300 times in 30,000 labors of the Munich gynecological clinic. Concerning the etiology of the frontal presentation none of the commonly mentioned causes were frequently met. The child plays the chief rôle. The origin of the frontal presentation

more often than the mother. Fortures of small and middle eight were found in the overbearing majority (84.3 per cent) like large children eight more than 3500 gm. with normal-sized or over-sized head were seen in 5.7 per cent.

The prognosis is relatively favorable for the mother. Spontaneous expulsion of the child occurred in 7.7 per cent of the cases, the remaining 92 per cent necessitated surgical intervention. The forceps were used 65 times (20 per cent) cesarean and traction 4 times (1.3 per cent) version and perforation of the head 5 times (1.6 per cent). The prognosis for the child is not so favorable. In the 31 cases of frontal presentation 57 of the children were more or less asphyxiated and one died. Thirty children died (9.4 per cent) death being directly or indirectly due to the course of labor. Those deaths included: half took place during the first 3 or 4 days after labor, the result of trauma sustained during birth (hemorrhages of the brain). In the 45 cases in which the child was terminated by the forceps, the delivery of the head was impossible seven times.

If the extraction with forceps in frontal presentation is impossible the author recommends the method of repeated applications of the forceps as taught by Szondi in order to improve the position of the head. The operation consists of applying the forceps diagonally, the convexity being applied to the frontal part of the head. The head is then rotated to transverse position by simultaneous traction of the forceps and the forceps are removed.

and again applied as in the low transverse presentation (convexity directed against the occiput). The head is then rotated to the median position and delivered in the occipital posterior presentation. The result of the operation are very favorable. The technique is not difficult. All seven cases mentioned above could have terminated favorably if treated in this manner.

In conclusion the following rules are given for the treatment of frontal presentation. Long continued position of treatment which results in 77 per cent of spontaneous births. Combined external and internal rotation of the fetus according to the method of corresponding positions of the parturient. The application of the forceps method is essential, delivery of the child in the occipital presentation. If these prove ineffectual, cesarean procedure must be performed. H. H. H. H.

De Bova, R. Acute Dilatation of the Stomach During Labor and Immediate ety Therapist (La dilatación aguda del Estómago durante el parto y su tratamiento inmediato). *Samuel med. Wochenschr.* 1914. 800.

Although cut dilatation of the stomach quite often follows surgical operations, it is exceedingly rare during labor and the early puerperium only ten such cases having been published thus far. These cases the author divides into three groups according to the pathogenesis.

I the first of these groups he places the idiopathic or true obstetrical cases, i. e. those without preceding gastro-intestinal disturbance and without anesthetic during labor. Prolonged and painful labor, eclampsia, and constitutional injury induced by loss of blood, intoxication, eclampsia, or infection, together with an increase in the toxemia due to rapid delivery and traction on the mentery may be predisposing factors. In one case of contracted pelvis and breech presentation, the author attributed the dilatation to compression of the duodenum by the head. In other cases the walling off of the dilated dilatation which was due primarily to accumulation of gas within the bowel.

The second group includes cases following anesthesia for such operative interference as Cesarean section. In these it is difficult to state how much the obstetrical element contributes to the purely surgical cause.

In the third of his groups the author considers those cases in which the dilatation is merely accidental complication of pregnancy as shown in case of perforated gastric ulcer with intestinal obstruction and in another of Cesarean section in cachectic patient suffering from uterine cancer. In another instance the author attributed the dilatation to excessive loss of blood due to placenta previa. The mortality of the cases published excluding three patients who died of perforation by gastric ulcer hemorrhage and cancer cachexia, was 3.0 per cent. The treatment is the same as that in cases due to surgical interference, i. e. abdominal position, gastric suction, and lavage.

VAMER.

Ries-Finley. Uterine Dystocia Secondary to Mitral Stenosis. *Gynecol Med* 9, 3, 96.
By Surg. Gynec. & Obst.

The author reports case and tabulates the following general principles regarding valvular heart disease.

Of all the varieties of chronic valvular heart disease mitral stenosis is most commonly accompanied by heart failure during pregnancy.

Aortic stenosis without mitral stenosis is rare in women few cases of pregnancy in women who have aortic without mitral disease come under observation.

3. When symptoms of heart failure have preceded pregnancy they are made worse by pregnancy.

4. Repeated pregnancies at short intervals cause greater risk of heart failure than do few pregnancies at longer intervals.

C. H. DAVIS

PURPERIUM AND ITS COMPLICATIONS

Freeman. Incidence of Malaria in the Puerperium. *Sanborns M J* 9, 3, 71, 429.
By Surg. Gynec. & Obst.

The author believes that malaria is fairly frequent complication of the puerperium. He mentions the following point in establishing the diagnosis:

Absence of any demonstrable signs of sepsis.

2. Periodicity or the return of the fever at a definite time. His experience shows that with the malaria there is a definite return of fever on the third or fourth day.

3. Examination of the blood for plasmodia. Positive findings are absolute, but negative findings are not.

4. Control of the fever and restoration of the patient by quinine.

In the discussion, prophylactic doses of quinine were advised during the puerperium whenever there is a history of malaria.

C. H. DAVIS.

Ohman. K. H. Ovarian Abscess After Labor (Ext. Fall of pyrovarium after partus). *Franks Med. Zeitschrift*, Heidelberg, 1913, 1, 447.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäc.

Ohman reports a case of ovarian abscess in a primipara 31 years old. The pyro-ovarium formed in connection with labor. The patient was successfully operated upon five months after labor. Streptococci were found in the pus. The ovary was the size of a goose egg with one large, and several smaller abscesses. The tube of the corresponding side and the adnexa of the other side were healthy. Part of the ovarian stroma was still present. Microscopical examination showed that only the outer 5 cm. of the abscess wall was intact. In this wall were found connective tissue proliferation, numerous plasma cells and polymuclear leucocytes. The eosinophilic cells had penetrated more deeply into the intact tissue layer than the others. The contents of the abscess cavity consisted for the most part of polymuclear leucocytes, eosinophiles, a few lymphocytes and here and there a plasma cell. The bacteria did not take the stain in the sections.

HJ. GUSTAFSSON

MISCELLANEOUS

Engelborn. The Biological Diagnosis of Pregnancy (Zur biologischen Diagnose der Schwangerschaft). *Zentralbl. f. Gynäk.* 9, 3, 300, 73.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäc.

Engelborn reviews Abderhalden's method for the diagnosis of pregnancy and the results so far published that have been obtained by it. He, himself, has tested the dialysis method in 68 cases. In each instance he used the serum of both pregnant and non-pregnant women. The results were as follows: In 60 cases of pregnancy the reaction was positive 49 times from the fourth to the tenth month and negative 11 times during the ninth and tenth months. In 48 non-pregnant women among whom were women with normal genitalia, with prostatic cancer tumors and lying-in women, the reaction was positive in 31 cases and negative in 7. The author examined also the action of the serum of pregnant and non-pregnant women on coagulated cancerous tissue, fetal liver tissue, and ovaries. The results were contradictory. He does not consider

Abderhalden's dialysis method specific reaction as diagnosis cannot be rendered by it. RUDENANN.

Jellingshaus and Loewe Th. Sero-Diagnosis of Pregnancy by the Dialyzation Method. *Bull. L'hyg. Hop. N. Y.* p. 3, 15, 68.

By Surg. Gynec. & Obst.

Their experiments are based on 563 examinations of different individuals and while not absolutely conclusive, they favor the opinion that it is possible by the dialyzation method to distinguish between healthy pregnant and healthy non-pregnant women.

ROBERT T. GILLMORE

Abderhalden, E. The Diagnosis of Pregnancy by Means of the Dialytic and Optical Methods (Die Diagnose der Schwangerschaft mittels des Dialysenverfahrens und der optischen Methode). *Deutsche Gesellschaft f. Gynäk. Halle*, p. 3, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

Abderhalden gives review of the principles of ferment reaction in the body and explains the dialyzation and optical methods. He holds that the methods are theoretically correct and the bad results reported are unquestionably due to poor technique.

The sources of the error are as follows. The blood used is hemolytic or is not well centrifugized, containing cells which digest in the dialyzing test.

The thimbles used are not well tested and constant. The organ has not been thoroughly freed from coagulable bodies which react with nishydria. If the serum alone and the organs alone contain each less than enough amino acids to give positive reaction when placed together the addition may be enough to give reaction though no digestion has taken place. This may occur in conditions like carcinoma, in salpingitis and hematomata where proteid products are absorbed in the blood. Only violet or bluish color is positive.

Mayer, A. Abderhalden's Pregnancy Reaction (Die Abderhalden'sche Schwangerschaftsreaktion). *Deutsche Gesellschaft f. Gynäk. Halle*, p. 3, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

Mayer considers Abderhalden's pregnancy reaction valuable as a diagnosis. By its use it is possible to determine whether the conception took place just before the first missed period or just after the last one. The reaction is positive in cases of recent extrauterine pregnancy but negative in old cases in which hematomata have formed and in clotting placental tissue is no longer present. The chief value of Abderhalden's method consists not in the diagnosis of pregnancy but in the study of the pathology of the internal secretions. For the latter study Mayer used the male and female germinating glands.

The serological behavior towards the female germinating glands with their great influence on the entire organism is of particular interest. We know of many diseases in which we suspect dysfunction

of the ovary. If yet included in his investigations cases of climacteric neurasthenia, hysteria, metrorrhagia, dysmenorrhoea, amenorrhoea, myoma, etc., in which we often find macroscopically changed ovaries. The practical value of these investigations is shown by positive Abderhalden reaction towards the ovary in case of metrorrhagia and a case of amenorrhoea. This means that in these instances there was a dysfunction of the ovaries and the hemorrhage was oophorogenic. A curettement, which is the usual treatment for these cases, would hardly have been successful, as it attacks the endometrium and not the diseased ovary.

Pregnancy also shows interesting conditions. Diseases such as osteomalacia, vesicular mole, emesis, and, perhaps, eclampsia, are believed to be due to disturbances in the ovarian function, particularly of the corpora lutea. It is possible that the serum of diseased pregnant women may react differently toward the ovary or corpus luteum from that of pregnant women.

Schäfer, P. Abderhalden's Ferment Reaction (Fermentreaktion nach Abderhalden). *Deutsche Gesellschaft f. Gynäk. Halle*, p. 3, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

Schäfer examined one hundred and twenty-three cases with Abderhalden's dialysis method sixty-five of these also with the optical method sixty-two were pregnant and sixty-one were not. He found two incorrect diagnoses in the pregnant. Hematomata gave varying results. In the non-pregnant he had eleven incorrect diagnoses, the greater number of which were found in cases of carcinoma and myomata. In twenty-three cases of tumors he had nine failures, and in thirty-eight cases of women with normal genitalia or senile atrophic genitalia he had two failures. With the optical method correct diagnosis was missed twice, a positive reaction having been obtained in a case of myoma and a negative reaction in case of normal pregnancy at the second month. Two cases of pregnancy and four cases of cervical cancer split off placental tissue as well as peptone-free cancer tissue.

Petri, Th. The Specificity of the Placenta-Splitting Ferments of Pregnancy Serum (Über die Spezifität der gegen Placenta gerichteten Fermente des Schwangerschaftsserums). *Zentralbl. f. Gynäk.*, p. 3, April 1911.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The history and development of Abderhalden's reaction is given in detail. To test the specificity of this reaction Petri attempted to determine whether the serum of pregnant women is capable of splitting albumin other than placental albumin, and whether placental albumin can be split by the serum of non-pregnant women. In both of his experiments he obtained negative results. The placenta was split only by the sera of two very anemic myoma patients, the serum of one patient with tubo-ovarian cyst, and that of one patient with

recurrent cancer of the breast. On the theory that, as a protoplasm foreign to the blood, the spirochetes that are contained in the blood of leucic patients could cause the formation of ferments, the author examined the sera of leucics. Only cases that had received treatment gave positive reactions. In explanation of this remarkable fact Peuri states that spirochetes which have not been injured are so powerfully viable that the organism is not able to form ferments against them until they have been weakened by mercury or salvarsan. RUMELAND.

Decl. The Fat and Cholesterol Content of the Blood in Pregnancy and the Puerperium in under Normal and Pathological Conditions (Sul contenuto in grasso e colesterina del sangue delle gravide e delle puerpere in condizioni normali e patologiche). *Ann. di ostet. ginec.* 9, 3, 1907, 212. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author examined the serum of 53 pregnant, puerperal, and normal women to determine the fat and cholesterol content of the blood in these conditions. Blood was obtained at the same hour each day 4 hours after meal, so as to exclude digestion lipemia. He found a slight increase during the first few months of pregnancy gradually increasing until the end. The same findings are present during labor and early puerperium as during the last months of pregnancy. No difference existed between primipara and multipara.

The cause of the accumulation of fatty substances the author attributes to a decrease in the lipolytic ferment, to general sluggishness of the processes of oxidation in the pregnant organism and to an increased assimilation of food. The increased activity of the organs of internal secretion, especially of the adrenal and corpus luteum may account for the production of leucithin and cholesterol. In eclampsia the fatty substances are particularly increased. The author considers the cholesterolemia a protection against the toxins of pregnancy. For figures and the method of procedure the reader is referred to the original.

SARON.

Fraenkel Internal Secretion and Pregnancy (Innere Secretion und Schwangerschaft). *Deutsche Gesellschaft f. Gynäk. u. Geburtsh.* 9, 3, May. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The antibodies which Fraenkel used in the treatment of osteomalacia are biological, not biochemical. They are the secretions of the other blood-forming glands which have become dormant in the serum of those castrated. Fraenkel did not find interstitial glands in the uterus walls in his far-reaching comparative examinations and they were not confirmed by anyone in the transactions of the Congress. However the reproductions of specimens made by Seitz and Wallart convinced him that it may occur. Their inconstancy however excludes specific function. 3. The claim that ovulation regularly occurs during the intermenstruum has been confirmed by Villemin, John

Miller Robert Meyer Seitz and Schroeder. Seitz justly criticizes Fraenkel for making macroscopical examinations of living persons with healthy internal genitalia. However, this is better than all the other methods which make use of extirpated diseased genitalia, since the exact determination of the age of the corpus luteum cannot be made microscopically. 4. The corpus luteum law has not been doubted by anyone. Seitz and Landsberg confirm it, using entirely different methods.

Josephson C. D. The Proof of the Presence of Spermatozoa in the Cervical Canal in Two Cases of Rape Eighteen Hours after the Perpetration of the Crime (Spermatozoa parvula i cervi uteri i två fall av våldtäkt 8 timmar efter rådet). *Allm. ners. Läkartidsn.*, Stockholm, 9, 3, 2, 415.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author describes two cases in which he was able to demonstrate the presence of spermatozoa in the cervical discharge eighteen hours after the perpetration of rape. None were found in the vagina. In one case the discharge was removed with a cotton swab on a metal applicator and spread on a glass slide. In the other it was obtained with a Braun syringe. Several applicators saturated with wood vinegar were then introduced into the uterine cavity to prevent conception if possible.

The author refers to the studies of Blumm and Runge in regard to the length of time that spermatozoa may survive in the vagina and uterus, and discusses the methods of examining for them in these organs. BYSTROM.

Warnke P. Placental Bacteremia (Placentare Bacteriämie). *Deutsche Gesellschaft f. Gynäk. u. Geburtsh.* 9, 3, May.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The usual positive findings in the blood during febrile abortion have led the author to bacteriologically examine the blood of patients during pyrexia in the course of labor. In each case the examinations were systematically conducted as follows: 1. Removal of secretions from the uterine cavity before delivery. 2. Blood was obtained from the veins before and after delivery. 3. Bacterioscopic staining of microscopic sections from the placenta and its membrane.

Of the thirty cases examined the temperatures were always higher than 38.5° C. The blood tests, always made before delivery if high temperatures or rigors occurred, were positive in twenty-one. I.e., more or less numerous colonies of bacteria were demonstrated in the large glucose agar tubes. Infections were mostly mixed. The examination of the blood which was removed after delivery remained sterile with one exception. This patient died three days post-partum from sepsis. Another patient succumbed to tuberculosis which rapidly progressed during the puerperium. In all the other cases the fever subsided rapidly and the patients were discharged cured. Both blood examinations remained

case eleven days after a period was missed. The embryo was about twenty-one days old according to embryological data. The uterus was carefully opened and immediately preserved. A number of pictures were made. In the first picture was seen the anterior surface of the uterus with the groove opposite the egg capsule. In the second was seen the posterior surface with the flat ovum deeply embedded in the thickened mucous membrane. The ovum itself measured only 1 mm. In the third and fourth pictures the ovum was opened. One could see the broad villous space, the cavity and the embryo. The first microscopical picture showed the numerous dilated glandular spaces around them the compact layer and then the villous zone with the intervillous spaces. The villi were without vessels and the intervillous spaces were filled with cloudy albumen-like material. It was especially noticeable that although it was not a very young ovum nevertheless there was no blood in the intervillous spaces. It could, therefore, be concluded that blood is not normally found in the intervillous spaces so early in the human, and that nutrition must take place from the substance mentioned.

The extensive development of the mesodermal part of the villi was remarkable when the smallness of the embryo was considered. The embryo was connected to the chorion by means of the abdominal pedicle. The amniotic cavity was flat and surrounded the dorsal side of the embryo. The next picture showed the same parts but much enlarged and showed the still open medullary groove. From the bowel Anlage a small protrusion was given off, the allantois. In the abdominal pedicle numerous vessels were observed. The next section passed through the middle of the body. Here again could be seen the small amniotic cavity. The yolk sac was represented by thin-walled lax much folded sac. Above the cord was found the closed spinal canal on both sides of it could be seen segmented somites to their side the somat plates with the notochordal fissure which was continued into the notochord.

In addition to the demonstration the author discussed the age of the embryo. A large number of young human embryos are now on hand. If these dated from definite phases of the ovulation and menstruation cycle, e. g., if fecundation occurred only in a limited period of the uterine cycle, then the different ova insofar as the relation to the last menstrual period is concerned, would make regular curve, presuming similar rate of growth for all. The author investigated the different reported ova according to size and age after the last menstrual period. He found that the facts so ascertained regarding them are spread out over a considerable space of time and that it is utterly impossible to plot curve. From this one can conclude that the age of the ovum may show considerable variation even though the interval after the last menstruation is the same. If one now considers the age according to embryological development it can be seen that

fecundation may occur at any time between two periods, but that the time when fecundation is most likely to occur is about a week before the first period missed. If the age is correct when judged according to embryological development, then the different ova ought to render a definite curve. That is indeed the case. The curve produced by the length of the embryo and of ova is almost identical with the above curve. From these curves the age of the embryo when judged according to development is approximately correct.

In regard to the absolute age of the ovum nothing definite can be stated in the human as the assumed latent period (in which no growth can be demonstrated) may be considerably shorter than supposed. From a study of the curves the author would rather believe that to be the case. If that is fact then all the known ova are considerably younger than they are supposed to be. This, however, may be ascertained later by further studies on animals, which can be accurately controlled.

Wegner G. A. Contributions to the Question as to the Origin of the Amniotic Fluid, with Pathological Anatomical, Experimental and Clinical Examinations of the Functions of the Foetal Kidneys (Beiträge zur Frage der Herkunft des Fruchtwassers mit pathologisch-anatomischen, experimentellen und klinischen Untersuchungen über die Funktion der fötalen Nieren). Leipzig and Vienna, Deuticke, 93.

By Zentralbibl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

To date, the question as to whether normally the foetus secretes urine in utero has not been answered. The author has attempted to solve the problem by pathological-anatomical, experimental, and clinical investigations. It concludes that the foetal kidney does not functionate under normal conditions and therefore does not take part in the formation of the amniotic fluid.

The report contains also detailed account of foetal malformations such as closure of the urethra, dilatation of the urinary bladder and hypoplasia of the kidney. It gives also description of the experiments undertaken to determine the function of the foetal kidneys, and the results of the examinations of the urine of the new-born. An extensive bibliography is appended.

ZAKHARCHENKO.

Bublitschenko, L. I. Bleennorrhoea of the New-Born and Its Prevention (Bleennorrhoea neonatorum und deren Verhütung). *Med. Rundschau* 93, 21, 540.

By Zentralbibl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

Examination was made of smears and cultures of the secretions from the eyes of new-born children affected with gonorrhoeal and non-gonorrhoeal diseases. The author is of the opinion that the conjunctiva of the new-born, especially in the first days of life, is comparatively more sensitive to all kinds of inflammatory diseases than the conjunctiva of adults. The causative factor of the severe eye in

inflammation is usually the gonococcus. Also at times this coccus may produce merely a slight catarrh. It is possible that more than one half of the blennorrhoeas are produced by streptococci, pneumococci, etc. There are also blennorrhoeas the biological causative factor of which cannot be determined. Intra-uterine blennorrhoeas usually result from dissemination of the infecting agents through high lacerations of the amniotic membranes.

The author gives statistics of the prophylactic treatment of gonorrhoea with different remedies and in conclusion reports his own experience. He prefers weak, non-irritating solutions as 5 per cent solutions of protargol as recommended by Ahlfeld, and especially a solution of sublimate 1:4000. He states that as the result of the regular disinfection of the hands of the attendants and the bodies of the parturient women with 1:3000 solution of sublimate, and of the eyes of the new-born with 1:5000 solution of sublimate the number of conjunctivitis was reduced from 0.3 per cent in 1904-1907 to 0.7 per cent in 1908-19. KERNST.

Nádory B. Simple Surgical Treatment of the Umbilical Stump (Einfache chirurgische Versorgung des Nabelschnurstumpfes). *Zentralbl. f. Gynäk.*, 9 3, xxviii 765.

By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. Gynäk.

The method recommended by the author complies with the three requirements of Ahlfeld, i. e., that there be positive prevention of an infection, protection against secondary hemorrhages, and no necessity for after-treatment. As soon as the pulsation of the umbilical cord ceases, the cord is tied tightly with a heavy silk ligature to the line of demarcation between the skin and Wharton's jelly. The cord is then cut short. The stump and umbilical ring are painted with tincture of iodine. The child can be bathed daily if an application of the tincture of iodine is made after the bath. The umbilical stump will fall off on the second or third day. The umbilical funnel heals rapidly. J. VOGT.

Freudenthal A New Procedure for the Enlargement of the Generally Contracted Pelvis (Ein neuer Kunstgriff zur (angeborenen) Erweiterung des geraden Weichen Beckens). *Ber. klin. Wochenschr.* 9 3, 1583.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

The author reports his method of gaining more room in contracted pelvis. It is as follows: After rupture of the membranes, the entrance of the head is aided as follows: A roll is laid under patient's back, each knee is grasped by an assistant, (leg pointing outward) and during each pain it is brought closely to the median line of the abdomen even pressing against it. Labor is rapid and uneventful.

The explanation is as follows: On account of the passive fixation of the femur the gluteal muscles inserted on the trochanters are contracted in the effort to stretch out the legs, to relax the pelvis, and exert

outward traction on the ilia. Stretching of the sacro-spinous ligaments results, the promontory recedes and the antero-posterior diameter is increased.

WENZEL.

Von Hoyer, D. G. The Use of Pituitrin in Obstetrics (Pituitrin in der Geburtschirurgie). *Nachr. Mediz. Ver. d. Frauenz. v. 3. B.* 1906.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. Gynäk.

From his own practice and that of his colleagues the author has collected 83 hysterical cases in which pituitrin was employed. In 10 of these it was used for post partum hemorrhage in the remaining 73 as an obolic. In four cases no result was obtained, and in three they were doubtful. In 10 cases there was a moderate, and in 50 cases, definite increase in the contractions. In 7 instances it caused powerful contractions. Of the 77 children delivered, 7 were slightly asphyxiated and 7 were dead. Of the latter 3 were dead before the beginning of labor.

STRATZ.

Rowland Pituitary Extract in Obstetrics. *Medical J.* 9 3, vii, 6. By Surg., Gynec. & Obst.

In this article the author illustrates the effect of pituitary extract in the induction of labor, the treatment of abortion, and its effect on cases in first and second stages of labor. Four case reports illustrate the induction of labor and treatment of abortion.

Concerning the use of pituitrin in the first and second stages of labor the author cites twenty-one cases in which the drug was used. In these cases the external os was for the most part slightly dilated and the indication for the use of the drug was ineffectual pains.

In this series Rowland gives four tables of pains, pulse, and blood-pressure to show the relationship of one to the other. In one or two cases the pituitary extract seemed to have no effect, but in the majority of cases pains were increased and labor hastened. In only two of the cases was the fetus asphyxiated or in any way harmed, one was forceps delivery and the other was also forceps delivery in an eclamptic after convulsion, in which instance the child was born dead.

The author states that he got satisfactory results in all cases where there was some dilatation of the cervix or where the head was engaged. In two cases pituitrin was successful in single dose after an attempt at forceps delivery had failed. Also whenever the head is on the perineum the delivery is always prompt.

Conclusions. Pituitrin is efficient to finish abortion and to induce labor in conjunction with other means. It usually causes advancement of the head with the cervix half dilated. 3. It is most successfully used in the last half of the second stage of labor to save delivery by forceps. 4. It probably causes no danger to the child. 5. It should not be used in toxic conditions with high blood-pressure.

EUGENE CART.

Heaney N. S. A Contribution to the Study of Pituitrin. *Surg. Gynec. & Obst.*, 9: 3, vii, 1913.
By Surg. Gynec. & Obst.

This article is the result of clinical and laboratory investigation into the physiological effects of pituitrin. It is divided into two parts, the first taking up the effects of pituitrin upon the normal and elevated blood pressures of human beings, and the remaining part the effects of pituitrin upon the lactating mammary glands.

Heaney finds that the effect of pituitrin upon the circulation are directly dependent upon the route of administration. When given intravenously it produces an immediate and profound disturbance, a marked increase in blood-pressure of from 20 to 60 mm., and lowering of the pulse of from 1 to 30 beats per minute, this being accompanied by marked systematic effects, pallor, great anxiety and symptoms resembling collapse. The disturbance is of brief duration, but is severe during the 3 to 4 minutes that it lasts.

Given by intramuscular injection, pituitrin influences the circulation only occasionally and then but slightly. The subcutaneous administration has no pressure effects.

Because of the possibility that an unrecognizable circulatory disturbance may contraindicate a sudden rise of blood pressure, Heaney advises giving pituitrin intravenously only in grave emergencies, such as severe post partum hemorrhage. The subcutaneous method should be the routine procedure, care being taken to avoid puncturing a blood-vessel and introducing this powerful substance into the blood stream.

In his inquiry into the asserted galactagogue action of pituitrin upon human beings and animals, Heaney was unable to demonstrate clinically that the extract has any effect. He thought that the secretion of milk observed by the original experimenters, which occurred immediately upon the intravenous injection of the hypophysis, might be another expression of the already well known effects of this substance on the smooth muscle fibres of the body. In these instances it showed its action on the breast muscle bundles, which by their contraction produced a squeezing-out of the milk contained in the breast. Heaney repeated his animal experiments upon human beings, using an instrument to measure the contraction of the breast instead of cannula inserted into the nipple. Every observation he obtained definite evidence that the breast contracted measurably when the patient received pituitrin intravenously. The knowledge that the breast contracts as a result of this medication, together with the negative clinical results obtained when he tried to increase the milk supply in mothers with failing lactation, leads him to conclude that the

results of the earlier workers in this field were wrong, by interpreted, that the stimulus which extracts of the hypophysis seems to give to the milk-flow is really an assertion of the effect that this substance has on all smooth muscle fibers.

Vortsch-van Vloten Statistics of Chinese Polyclinic (Statistik einer chinesischen Poliklinik). *Arch. f. Schiffs- u. Tropen Hyg.*, 9: 3, xvii, 53.
By Zentralbl. f. d. ges. Hyg. Gaborstah. u. d. Grenzgeb.

The author was consulted 16,000 times by 5,500 Chinese during 1909-10 when he conducted the hospital Yi An in the central part of the province of Canton. Over 3,600 case histories are available. Here only the obstetric and gynecological material is discussed. Four cases of birth anomalies occurred, three of puerperal fever, 14 of menstrual anomalies, 1 of disturbances during pregnancy, 8 of mammary abscesses and tumors, 4 cases of vaginal and uterine catarrh, of vaginal prolapse and one of ovarian tumor.

The following operations were performed: colporrhaphies, bladder-stone, extirpation of a cancerous vulva. The female residents of that district avoid the "devil's doctor"—a European midwife has never been called to a confinement among them. In another district three to four days distant however she is called quite commonly. Female children are of little consequence in China; they are frequently killed after birth, or if later they prove weaklings, are starved. The care of the umbilical stump is bad, the cord is not dressed, even after the stump falls off. If suppuration sets in, chewed leaves are applied. If hemorrhage occurs, tobacco or earth are put on so that tetanus commonly results. In spite of continuous nursing for two to three years the infant mortality is high, as the children are given everything else in addition.

In cases of pathological labor the author was always called too late. The Chinese women cannot believe that European physicians have learned the obstetrical art. Labor is usually easy; the hips are well developed under the loose mode of dress. Midwives are rare; usually mothers-in-law or neighbors render the necessary aids without any asepsis. If the labor is prolonged internal and external massage is resorted to. The after-birth is removed by traction on the cord or by manual extraction. Labor and puerperium are frequently surrounded by superstition and idolatry.

Among the Europeans there were many menorrhagias and abortions during the first to the third month, probably induced by a latent malaria. Labor in Europeans were usually normal.

The author presents literature in regard to Chinese physicians and their methods of treatment.

VON MULLER.

GENITO-URINARY SURGERY

KIDNEY AND URETER

De Berne Lagarde and De Bea fond. The Suprarenal Capsules in Cancer of the Kidney (Les capsules surrénales dans le cancer du rein) *Arch. vol. clin. de Vicker* 1913, 1, 72.

By Journal de Chirurgie.

Taking up in detail a discussion which was started before the French association for the study of cancer the authors state that nothing authorizes systematic ablation of the suprarenal capsule in the course of nephrectomy for cancer such as was once recommended by Grégoire.

After a detailed anatomical study of the blood vessels and the lymphatics of the suprarenal, they point out the theoretical dangers of unilateral suprarenalectomy as long as our means for investigating the functional value of these glands in specific cases and especially the independent value of each one of them, are inadequate. In the anatomopathological chapter they show how rare and often vague are the observations that are published concerning the condition of the suprarenals in the course of cancer of the kidney. By means of letter written to them personally they prove that Israel did not recommend ablation of the suprarenal in the course of nephrectomy for cancer as he is quoted as having done. They then describe seven hitherto unpublished studies of the suprarenals in cases of cancer of the kidney. Three of these belonged to Leguen and four were mine. Their conclusions are as follow. Of the thirty-seven observations which mention was made of the suprarenal capsules, no information as to their condition was given in four cases. In eighteen cases the suprarenals were intact and in fifteen cases they were neoplastic. In eleven of the fifteen cases in which the suprarenals had been invaded there were accompanying metastases in the lungs, the liver, the bones, and the nervous system and in two of these the suprarenal metastasis was located on the side opposite to the cancer of the kidney. Therefore the disease of the suprarenal may be considered regular metastasis, sign of generalization. The systematic ablation of the suprarenal in the course of nephrectomy for neoplasm is not recommended.

MAURICE CHÉVREUIL.

Krotoszyner. On the Differential Diagnosis of Appendicitis and Nephrolithiasis. *Cal. St. J. Med.* 1913, 21, 227. By Surg., Gynec. & Obst.

The author reported case of an apparent right sided nephrolithiasis, which proved to be an appendicitis with several fecal concretions.

The diagnosis was made from pain, micturition

agonizing in character. The urine was cloudy with abundant pus microscopically; mensoscopy showed no urine from the right side, while the right ureteral catheter met an obstruction 5 cm. from the vesical outlet. Chromocystoscopy showed no color from that side within an hour. Radiography showed apparently normal kidney shadows on both sides, with two small well-defined shadows on the right side of the spinal column at the site of the ureteral impingement and apparently in the course of the ureter as ascertained by shadow-cutting ureteral catheter.

On operation the right ureter was found embedded in dense adhesions, and in the attempt to free them the peritoneum was opened and a long and tortuous appendix was found as part of the adhesions upward and downward to point near the insertion of the bladder.

Since the operation, no urine can be obtained from the right side and the obstruction is still present at the same site, but as the patient suffers no discomfort she refuses further interference.

LOUIS GROSS.

Gborvayeb. A Study of the Mechanical Obstruction to the Circulation of the Kidney Produced by Experimental Acute Toxic Nephropathy. *J. Exp. Med.* 1913, 17, 90.

By Surg., Gynec. & Obst.

In study of the influence of disease on the circulation of various organs, as shown by the perfusion method, Gborvayeb came to the following conclusions as regards the kidney. Blood serum is the most satisfactory fluid available. There is some impediment to the circulation of serum through kidneys in which nephropathy has been produced by arsenite, nitrate, potassium chromate, potassium arsenate, cantharidin, and diphtheria toxin. The histological changes in the cells of these kidneys — swelling of the epithelium and changes in the glomeruli — are such as could produce obstruction. The circulatory obstruction is greatest in those kidneys in which the above changes are most marked. In the kidneys in which the drug has caused destruction of the cells the impediment is less marked than in those in which the cells are swollen but otherwise intact.

The impediment to the flow of perfusing serum is in direct relation to the anatomical obstructive lesion, and tends toward normal with the cessation or healing of the process. Bacteria, though present in large numbers, impede but little the flow through the kidney. Rabbits may have spontaneous nephropathy and show no casts or albumen. A certain amount of obstruction is noted in these cases.

JAMES F. CHURCHILL.

Payn and Macnider: An Experimental Study of Unilateral Hematuria of the So-Called Eosinophilic Type. *Surg. Gynec. & Obst.* 9, 3, 271-93.
By Surg. Green & Obst.

Payn and Macnider review the literature on this subject and report five cases of unilateral hematuria of the so-called idiopathic type which are relieved of all symptoms by nephrectomy. The authors are inclined to believe that the majority of these cases the etiology is not a chronic inflammation of the pelvis or another. A series of experiments was conducted for the purpose of excluding certain entirely developing anastomoses as being the principal cause for the occurrence of blood in the urine.

The experiments can be divided into three groups: (1) Those in which it was attempted to induce hematuria by interference with the autonomic nervous mechanism of the kidney. (2) Those in which hematuria was attempted by the introduction of nephrotomy or ablation of the renal artery which had special affinity for the vascular element of the kidney. (3) Those in which the blood supply to the kidney was interrupted by occluding the renal artery by the use of a clamp. These experiments could therefore apparently contradict Klemperer's theory that neurogenic edema, and also Albarran's idea that slight basis of nephritis, is sufficient cause of the unilateral hematuria. Finally it seems most probable since acute nephritis can be eliminated that the clinical condition is chronic nephritis one in which there is rupture of glomerular vessel and the bleeding kept up by the high local pressure so constantly found in chronic nephritis.

Newman, D. Renal Varix and Hyperemia as Causes of Symptomatic Renal Hematuria. *Brid. J. Surg.* 9, 3, 4-4. By Surg. Green & Obst.

The author states that there is always a cause for symptomatic renal hematuria. This article deals with two of the more obscure causes, namely renal varix and renal hyperemia. The only symptom of both these conditions is painless hematuria. The fact that the blood comes from the kidney is established by means of the cystoscope. As a rule, rest has little effect upon the hemorrhage from renal varix but it may temporarily stop the hemorrhage from renal hyperemia.

If in the treatment of these cases the bleeding does not respond to rest the kidney should be exposed and its position examined. Any pressure or distortion of the renal vein should be removed and the kidney anchored in such a position that torsion or pressure cannot recur. If the kidney position seems normal, the kidney should be split, and the papillae carefully examined for varices. Any varices found should be removed either by cauterization, or by cutting away the papillae.

Sometimes it is impossible by operation to find the source of the hemorrhage and even after the kidney is split the bleeding may continue. If the hemorrhage

is severe and the patient is getting weak, the kidney should be removed.

The technique recommended for splitting the kidney is to pass a silver wire, threaded upon a hypodermic needle, into the pelvis of the kidney and out again. The wire should then be drawn through the kidney substance with a sawing motion. V. Lacroix.

Israel W. Pyelotomy (Zur Pyelotomie). *Zentralbl. f. d. ges. Chir.* 1, Grenzgeb. 9, 3, 11, 524.
By Zentralbl. f. d. ges. Chir. 1, Grenzgeb.

In Israel's clinic pyelotomy is given the preference over nephrotomy. In over forty consecutive operations for renal calculus nephrotomy has been performed eighteen times during the past three and a quarter years. The author emphasizes the importance of good X-ray picture. In pyelotomy drainage was employed only when there was much sand or gravel present and then only with view to later pelvic irrigation. The pelvic wound healed without the formation of fistula even when it was not possible to suture it exactly. The peripelvic fat was carefully sutured in all cases. Schreier.

Corbett, F. J. A Form of Experimental Nephritis. *Urol. & Cyst. Rev.* 9, 12, 353.
By Surg. Green & Obst.

The author divides his studies into three groups. In the first group he describes the condition of kidneys after the ureter has been tied for twenty-four hours, six days and twenty-one days. The twenty-four-hour kidney he found to be larger and heavier than normal. It presented mottled appearance upon section. The convoluted tubules might have a dilated lumen, a compressed epithelium often showed obliteration, and degeneration or necrosis of the epithelial cells. The blood vessels were dilated and increased in size. There was deformity of the tubules and round-celled infiltration. The twenty-day kidney was white in color and presented picture of extreme hydronephrosis. The tubules were dilated, the epithelium deformed, and fat changes were noted in the epithelium. The epithelial cells were pigmented.

In the second group Corbett assembles those kidneys in which there had occurred marked fat changes accompanied by a deformity of the tubules but with very little cell necrosis or degeneration and comparatively little interstitial change. In the kidneys he found that fatty degeneration began in the twenty-four-hour kidneys and extended throughout the whole series in a large per cent of the cases.

In the third group the author cites only one case. This was as follows: The cross sections showed great deal of edema and in one place an infarct. Cultures from the urine were sterile. The area remote from the infarct the microscopical picture showed so much edema that some of the tubules seem to be actually compressed. The cells of the tubules appeared swollen and abnormal. The pictures suggested potential atrophy. Aside from

this example of primary atrophy no other was encountered.

Corlett's conclusions are as follows: The histological picture resulting from trauma of the ureter may belong to any one of the following groups: (1) picture closely resembling epithelitis; (2) picture of fatty change; (3) picture presenting edema; (4) possible suggestion of trophic. There is no definite proof to show that changes are mechanical or of the nephrotic substance. A. C. STOKES

POMEROY, A. Indications for Operation in Chronic Nephritis (Indications opératoires dans les néphrites chroniques). *J. d'ur.* 1914, 7. By *Journal de Chirurgie*

The therapy of chronic nephritis is purely symptomatic and the frequent impotency of medical treatment has caused surgeons to attempt to restrict the spread of the trouble and to remove mechanical obstruction to function. To overcome the effect of engorgement on the kidney with its inelastic capsule decapsulation and nephrectomy have been performed. Both operations reduce the intrarenal tension. The second, by the abundant hemorrhage that it causes, relieves the system of part of its toxins that have accumulated in the blood and thus lessens the vascular tension. It also terminates the capillary paralysis such as preventing serous transudation. Decapsulation should be used in the less serious cases, nephrectomy when there is serious uremia, intoxication, subcutaneous edema, oliguria, anasarca, and high blood pressure. The mortality of operation is only 1 per cent. The danger is least in cases of edema alone; it is greater in cases of anemia either alone or associated with edema and with oliguria and is greatest in cases of anemia associated with oliguria without edema. From the point of view of permanent relief the results are best in cases of edema alone or of edema associated with anemia or oliguria. The best are those obtained in cases of uncomplicated uremia. Third best are the results obtained in cases of anemia complicated by oliguria, and fourth, those obtained in cases of anemia associated with oliguria and edema.

Indications and contra-indications for operating: 1. Urinary syndrome. This syndrome the most constant of all, consists in quantitatively and qualitatively changes in the urine and the presence in the urine of albumin, cylindrical casts, leucocytes and red blood corpuscles. Persistent oliguria and diminished ash content are indications for operation. The amount of albumin is not an indication.

2. Cholemic syndrome. The indications vary according to whether the droopy is located in the subcutaneous cells, those of the large serous cavities, or the viscera. Anasarca is an indication; ascites is not a contra-indication, but hydropericardium and hydrothorax and edema of the lung increase the operative risk.

3. Cardio-vascular syndrome. Myocarditis with dilation of the heart, hypertrophy of the left side

of the heart with a violent beat of the pericardium and gallop rhythm are contra-indications, as is also Bright's pericarditis. Hypertension of the arteries accompanied by true hypertrophy of the heart is an indication.

Functional troubles of vision due to a slight intoxication with encephalic nerve centers may be helped by operation but changes in the optic nerve and retina cannot. J. T. VINE

SLYCH, W. M. The Surgical Treatment of Chronic Nephritis, Hematuria and Dolorosa (Die chirurgische Behandlung chronischer Nephritis, Hämaturie und Dolorosa). *Chir. arch. d. Schweiz.* 1914, 49. By *Zentralbl. f. d. ges. Chir.* u. Grenzgeb.

In the picture of nephritis new factors must be taken into consideration as the result of the newer diagnostic methods, cystoscopy, ureteral catheterization, functional diagnosis. These new methods have shown that nephritis may be unilateral, that the involvement of the organ may be only partial, that a nephritic kidney may excrete urine free of albumin and casts, and that there are forms of nephritis which are manifested principally by pain (oligo-nephritis) and by hemorrhage (nephritis hematurica). The three interesting observations of the author belong to the last group.

Slych had three cases of nephritis hematurica and one case of oligo-nephritis or so-called nephritis dolorosa. The first case of hematuric nephritis was that of a man 4 years of age. On the basis of the pains and findings of careful cystoscopic examination, and of functional tests, a diagnosis of tuberculosis of the kidney was made. A nephrectomy proved this diagnosis to be incorrect. On careful examination the organ was found to be affected only by chronic nephritis with numerous hemorrhages into the straight urinary tubules. The patient recovered. The second case the patient a woman 55 years of age suffering with edema. Blood as found in the urine. A cystoscopic examination showed that the ureter from which the blood escaped was normal. On the basis of this and other examinations diagnosis of operative nephritis hematurica of the right kidney was made. The operation confirmed the diagnosis and decapsulation as performed according to the method of Albarran. Complete recovery resulted.

The history of hematuric nephritis is associated with the names of Israel, Albarran, and Pomeroi. The diagnosis of this disease is contingent upon the elimination of all other conditions that are accompanied by hemorrhage from the kidney. It should be treated by decapsulation and nephrectomy. According to the statistics of Pomeroi published 1909 there were no deaths in 6 cases of decapsulation, and four deaths in 11 cases of nephrectomy. The removal of the kidney is indicated only in severe attacks.

The third case was that of a man 3 years of age who suffered from colicky pains. The pains could

be induced also by introducing fluid into the pelvis of the kidney. The trouble was diagnosed as nephritis dolorosa. Calculus, tuberculosis, pyelitis, etc. were excluded by the absence of pathological elements in the urine and by negative X-ray findings. At the operation the kidney was decapsulated and a small piece of kidney tissue was removed for microscopic examination. The patient recovered and was free from further attacks of pain. Microscopic examination showed changes similar to those of severe chronic nephritis. The case, therefore, was the kind of nephritis that is manifested only by colicky pains. This form is seldom observed. Tauson found records of only 4 cases of it in the literature and Kummell has observed only 6 cases.

Rage. The Present Standpoint in Regard to Nephritis and Nephritic Surgery. (Über den derzeitigen Stand unserer Nephritis-Operationen und der Nephrosculptur.) *J. prakt. Chir. Orthop.* 9, 3, vi, 565. B. 7. 1911. 18 pp. 4 ges. Clu. Greifswald.

Albumen and cast matter may be demonstrated in the urine of perfectly healthy individuals after severe bodily exertion and must be considered as physiological depending according to La. being a hypersecretion of the renal filter. Orthostatic and lordotic albuminuria, the pure forms are relatively benign and are probably due to mechanical disturbances and rotation of the renal circulation. By means of powerful massage of the kidney the excretion of albumen, cast epithelium, and red blood cells may be produced. The disturbances incident to wandering kidneys must likewise be considered as traumatic nephritis. On the other hand operative findings have proven the interesting fact that even the absence of urinary findings definitely nephritic processes may exist in the kidney including the well known cases of contracted kidney with intervals of no albumen. The first symptoms of such nephritis without albumen are frequently nephralgia and hæmaturia. The opinion at present seems to be that such hæmaturias are due either to chronic nephritis which is usually bilateral or to renal nephritis which is usually unilateral. A bilateral nephritis or partial nephritis is possible but rare.

Action of decapsulation. Acute and infectious nephritis also is injury and swelling of the vessel bearing connective tissue followed by inflammation and degeneration of the epithelium. The swollen and enlarged kidney is compressed within its unyielding fibrous capsule the circulation and excretion of urine is interfered with. Decapsulation relieves the tension, and even after complete anuria a marked excretion of urine will follow the operation in cases of acute nephritis. Tissue that has been destroyed of course cannot be replaced as regeneration of kidney epithelium does not occur but injured cells will frequently recover after the decapsulation. Edebohls believes that collateral circulation is established between the cortex and the surrounding tissue and that this is particularly marked if the kidney is embedded in mesentery. Other writers

deny this and claim that a new dense capsule again develops.

In toxic nephritis, such as that following poisoning with carbolic acid or bichloride of mercury the kidney should be decapsulated especially if internal remedies fail. The kidney of eclampsia should be decapsulated in case no improvement follows the emptying of the uterus. In cases of acute nephritis following infectious diseases the kidney likewise should be decapsulated in case internal remedies do not improve the oliguria or the uræmic symptoms. Acute infectious nephritis is of hæmatogenous origin and can usually be differentiated from the ascending pyonephritis. It is usually unilateral and demands a nephrectomy or nephrectomy following ureteral catheterization. In chronic Bright's disease decapsulation has been performed in cases in which no improvement followed a thorough course of treatment. The decapsulation should be bilateral. In a fair percentage of cases clinical improvement results. Decapsulation is followed by improvement in certain cases of remittent nephritis, uria or oliguria. Severe hæmorrhages in cases of chronic nephritis not improved by internal therapy should be treated surgically. In addition to the decapsulation nephrectomy should be done to make sure of the etiologic cause of the bleeding. Decapsulation and splitting of the kidney should be performed also for nephralgia in which hæmorrhages similar to those of chronic nephritis occur.

ORIGINAL.

Murard. Chronic Nephritides from the Surgical Viewpoint. (Les néphrites chroniques, point de vue chirurgical.) *Thèse de doc.*, Lyon, 9, 3, May. By Journal de Chirurgie.

The author has tried to ascertain from the study of the literature and his own experience the rôle of surgery in chronic nephritides, both Bright's disease and the other renal scleroses characterized by a pain and hæmaturia. The benefit of kidney operations in cases of hæmaturia was discovered by accident and it was thought that even Bright's disease might be cured by surgery.

The author finds that renal intervention is at least innocuous. In the unilateral cases, suppurative and tuberculous kidneys and kidney stone cases, in which the trouble in the other kidney is compensatory surgery is undoubtedly of great value. Decapsulation has been tried with some success. A capsule is rapidly reformed and there are not enough anastomosing blood vessels to have any effect on the drainage of the kidney. Nephroepioplasty is not more efficacious. Nephrectomy which is sometimes followed by complete cessation of albuminuria is an important operation.

Murard describes the hæmaturias for which there is no demonstrable cause as hæmaturias of latent nephritis. These are in some cases due to a tuberculosis or a derangement of function in the hæmatopoietic organs, especially the liver. In these cases decapsulation is not sufficient and nephrectomy is

often only temporary. Renal tumors and continuous hemorrhage are contra indications.

Painful nephritis without nephropoiesis or renal tuberculosis is more rare than is generally believed. The pain may be due to perinephritis or Bright's disease or an active localized sclerodermis accompanied by inflammatory congestion following renal calculi or attenuated infection. For this condition freeing of perirenal adhesions and decapsulation, or if there is congestion, nephrotomy is advised.

Operative treatment of Bright's disease is not justifiable only by the importance of medical methods. Nephrotomy may help if there is congestion but as congestion is but a symptom and not cause of the nephritis it is really of no avail.

G. CORRE.

Blum V. Th. Physiology of the Kidneys and the Functional Diagnosis of the Kidney in Renal Surgery and Internal Medicine (Nierrophysiologie und funktionelle Nierendiagnostik im Dienst der Nierenchirurgie und der Internen Klinik). Leipzig and Vienna, Deuticke, 1913.

By Zentralblatt für Gesamte Chirurgie u. Gynäkologie.

The principal function of the kidney is to maintain for the blood the same osmotic pressure that corresponds to the freezing point of the blood—0.50. The osmo-regulating action of the kidney consists of several individual functions chief of which is water filtration, salt secretion, and resorption of some of the water and some of the salt. The urine is a watery solution of organic and inorganic salts while a part are products of metabolism and a part are substances which cannot be utilized by the organism. It is the function of the kidney to prevent accumulation of these salts in the blood which could lead to uræmia.

Urine is secreted as follows: The glomeruli are filters with extensive semipermeable membranes by means of which the blood gets rid of its superfluous water. It is assumed that also at the same time a small quantity of salts are filtered out. The urine in the glomeruli is alkaline. In the convoluted tubules of the first and second order through active cellular activity urinary salts are secreted. Uric acid, acid salts, and phosphates, which are excreted by the tubular epithelium, render the glomerular filtrate acid. The medulla of the kidney (the region of Henle's loops and the straight urinary tubules) some of the water and some of the salts are reabsorbed. In addition to its principal function of maintaining the normal osmotic pressure of the blood, the kidney possesses synthetic functions, such as the secretion of sugar after the injection of phloridzin. It is supposed also that it elaborates an internal secretion. Although careful examinations have shown that both healthy kidneys do not always excrete the same amount of substances of absolutely the same character this fact does not decrease the value of the functional tests. In performing functional tests on the individual function of the kidney should be tested separately: water filtra-

tion, salt excretion, and water resorption. The so-called topical diagnosis should be made.

Former methods led only to an anatomical diagnosis of the kidney trouble, and only the total insufficiency could be determined from the uræmia, uræmia, cardiac hypertrophy etc. To-day by means of ureteral catheterization and functional diagnosis the sufficiency and insufficiency of each individual kidney can be determined exactly. Of the methods of functional diagnosis Bouchard's test for the toxicity of the urine and Thudicum's determination of the urinary coloring matter are not of use clinically. On the other hand cryoscopy for the determination of the molecular concentration of the blood and urine according to the method of von Koranyi is of great value. The freezing point of the urine varies even in healthy kidneys to a considerable degree, according to Kimmell and Rumpel, between — 90° and — 30°.

Cryoscopy is of particular value because it permits a comparison between the separated urines, and because it can be used in experimental polyuria. Blood cryoscopy is of considerable value in determining the function of the kidney. In normal kidneys the concentration of the blood is constant the freezing point according to von Koranyi is always — 90°. According to Kimmell the freezing point of the blood is of considerable value in the prognosis of nephrectomy in cases of unilateral kidney disease. In combination with other functional tests and clinical observations blood cryoscopy many instances may be the deciding factor. It is easily possible however that — 80°—0.50 and we could not dare, therefore, to perform a nephrectomy. If for instance the halves of both kidneys are diseased and both kidneys were just sufficient to carry on the necessary kidney function blood cryoscopy would yield normal values. A nephrectomy could thus cause produce renal insufficiency. Ureteral catheterization, however, could prevent such an error. By means of blood cryoscopy can measure the osmo-regulating function of both kidneys with exactness.

Albarran's experimental polyuria measures the power of the kidneys to excrete water. Healthy kidneys adapt themselves to increased demand. In artificial polyuria the healthy kidney changes and increases its functional capacity. In the injured organ as the result of lack of reserve strength has lost this power either entirely or in part. Another method of testing the functioning of the kidney is not the excretion of coloring substances that have been injected. The methylene blue of Kauter forms colorless derivatives in the body and is therefore not practical. The indigo-carmin test of Volcker and Joseph is excellent, the coloring matter passing through the kidney almost unchanged and acting similar to urinary salt. The nature of the excretion therefore allows us to form conclusions in regard to the salt-secreting ability of the kidney.

The indigo-carmin test is of great significance in unilateral lesions. Delayed excretion of the



BLADDER, URETHRA, AND PENIS

Barney. A Case Illustrating the Efficiency of the High Frequency Current in the Treatment of Tumors of the Bladder. *Boston M. & S. J.* 1913, chiv. p.
By Surg., Gynec. & Obst.

The writer reports a case of apparently complete cure of a tumor of the bladder by means of the high frequency current. Cure was effected in nine sittings at intervals of one or two weeks. Owing to the appearance of the bladder wall at the site of the tumor at the last sitting, it was believed that the growth was cancerous. Suprapubic cystotomy showed the suspected area to be reddened, edematous, and brawny with a few small ulcerations and a generally rough surface. Careful study of the excised specimen by two competent pathologists failed to find any tumor cells. Cystoscopic examination of the patient nine months later showed no evidence of recurrence.

I regard the misleading appearance of the bladder wall the writer quotes Keyes Jr. who says:

It is a curious reaction of the bladder wall to the irritation of the current. The mucosa swells up in such a way as to simulate an infiltrating carcinoma. Several weeks intermission in the burning suffices for the subsidence of this.

So far as is known, no other case of bladder tumor treated and presumably cured by the high frequency current has yet been actually inspected at subsequent time either at operation or post-mortem. This method of treatment is, therefore, in certain cases of non-malignant growth, entirely effective.

Stevens. Diagnosis and Treatment of Multiple Urethral Calculi, with Report of Unusual Case. *J. Am. M. Ass.* 9 3, 101, 86.
By Surg., Gynec. & Obst.

The author reports one case of multiple urethral calculi. After demonstrating the absence of stones from the kidneys, ureters, bladder and prostate, and the normal condition of the kidneys, he concludes that the stones had formed in the urethra. He removed all by intra-urethral instrumentation.

In discussing this condition Stevens draws distinction between calculi originating elsewhere in the urinary tract than the urethra and simply lodging there while being passed and those which form there primarily. The latter are caused by the deposition of urinary salts in abnormal pockets, such as are formed by strictures and diverticula.

GROSSER, G. SMITH.

Jordan. Congenital Stricture of the Prostatic Urethra with Bladder Hyperplasia, Urethral Distention and Multiple Abscesses of Both Kidneys. *J. Am. M. Ass.* 9 3, 101, 244.
By Surg., Gynec. & Obst.

The author reported a congenital prostatic stricture, which is exceedingly rare. The treatment proved unsuccessful; his patient died at the age of seven weeks, having been under observation three weeks. The post-mortem examination showed

stricture of the prostatic urethra, one fourth inch in length. The kidneys were enlarged, cystic, nodular and showed a chronic diffuse nephritis. The ureters were large and sacculated. The bladder was small, the walls being composed of dense fibrous tissue.

C. D. FRANKLIN.

GENITAL ORGANS

Belfrage. The atrophic Total Loss of Skin of the Male Sexual Organs (Ectopic cutis totalis genitalium). *Med. and Surg.* 9 3, 217, 11.
By Zentralbl. f. d. ges. Chir. 1. Congress.

Belfrage reports a case in which through trauma there was loss of the entire cutaneous covering of the penis and scrotum. The penis was covered with Thiersch grafts from the forearm, and the testicles were transplanted beneath the skin of the abdominal wall. The result was quite satisfactory. The transplanted skin of the penis was freely movable. The testicles were not fixed under their cutaneous covering and not exposed to pressure, so that there was no interference with the sexual functions.

The author discusses the methods employed by others in similar cases and concludes that the Thiersch graft is the proper procedure for covering the penis. Where there is entire loss of scrotal skin the Thiersch method may be used, or the neighboring skin may be utilized as plastic flap, or lastly the author's method of transplanting the testes may be employed.

DRENNAN.

Carlson, A. A Case of Perineo-Scrotal Dermoid Cysts. *Brit. J. Surg.* 9 3, 4, 39.
By Surg., Gynec. & Obst.

Examination in the case of a boy 14 years of age revealed two subcutaneous swellings in the perineum which had been present since birth and were slightly increasing in size. One of them was situated in the posterior part of the scrotum and the other at the anterior extremity of the perineum. Extending backwards from behind the two swellings was a narrow median intradermic passage or track which reached as far as the anal margin. A stream of the cyst contents could be seen rippling along the passage in the perineal raphe. Rectal examination was negative. The penis and urethra were normal. The diagnosis made was perineal dermoids with extension backwards along the raphe. The cysts and the narrow perineal canal were removed by dissection with satisfactory result.

The interest in the case lies mainly in the existence of the perineal tube.

In this connection the author cites somewhat similar case reported by Edington of Glasgow. The patient, a boy two days old, with an imperforate anus, had a perineal tube that communicated with the bowel.

The author believes that pathological conditions of this kind are the result of an error in the development of the external genital folds. DRENNAN.

Ectopia testis is subject to inflammation which, particularly the penneum may be either traumatic or infectious. Inflammation in the penneum may lead to an ischio-rectal abscess. When ectopia testis is associated with hernia, operation is advisable particularly for the hernia. The testis may become the site of malignant growth.

Stevens, A. R. On the Value of Catheterization by the High Frequency Current in Certain Cases of Prostatic Obstruction. *Y. M. J.* 3, 2nd, 70. By Surg. (Sec. & Obs.)

Stevens reports 11 cases in which he successfully applied Beer's suggestion of catheterizing by the high frequency current for the relief of prostatic obstruction.

One case of contraction of the esophageal neck, with twenty-six ounces of residual urine and nocturnal enuresis, as characterized six times by means of the Oudin current for total fifteen minutes. The residual urine was reduced to one and half ounces. In case of midline lobe prostatic obstruction, the fourteen ounces of residual urine, the Oudin current applied six times for total of nine and one half minutes. The residual urine reduced to a half ounce. The treatment were tolerated so well that no anesthetic was used. More or they did not interfere with the patient's business and were not followed by pain or serious bleeding.

Catheterization by high frequency current is not suitable for large prostates but will probably prove sufficient for constriction of the esophageal neck and for median lobe or lobes and single lobes that project into the bladder, retraction from other portions of the prostate. **J. B. CARRETT**

Gebel. Carcinoma of the Prostate (Über das Prostatacarcinom). *Zentralbl. f. d. Gesamte Chir. u. Med.* 1904, 379. By Zentralbl. f. d. Gesamte Chir. u. Med.

Carcinoma of the prostate is a relatively frequent disease. Microscopically, carcinomatous prostate is frequently abnormally small. Other times the infiltrated tissue overgrows, tumor that fills the entire pelvis. Its consistency is usually hard. Its surface may be nodular or smooth. The tumor is usually an adenocarcinoma, more rarely it is sarcomatous. In most instances it is primary of the prostate. Secondary tumors are found most commonly after gastric tumors.

The so-called osteoplastic carcinomas of the prostate consists of small nodules, hard and primary of the organ, with numerous metastases in the form of diffuse infiltration in different bones. The bones of the pelvis, the lower portion of the spine and the bones of the lower extremity are most commonly involved. Prostatic hypertrophy seems to predispose to carcinoma. The early diagnosis can be only probable. If small, hard prostate is palpable per rectum, carcinoma must be suspected. The other symptoms are variable. The prognosis is unfavorable. Advanced cases can be treated

only symptomatically or palliative operation may be performed. Some authors do not deem radical removal advisable even in the early stage. The methods of operation are: reliable suprapubic, perineal, or combined. In case the bladder and seminal vesicles are involved the author advocates the method of Volcker ischio-rectal incision with the patient in the lithotomy position. The statistics of the operative results are bad. A permanent result is reported occasionally, however the attempt may be made to effect radical removal of the carcinoma, less the case is far advanced.

Drives

Willis, R. J. Carcinoma of the Prostate Gland. *Brit. M. J.* 9, 3, 4, 60. By Surg. Gynec. & Obst.

The author quotes Albarra's statistics as proving that 4 per cent of all prostates removed by operation show malignancy and Young as saying that 2 per cent of all enlarged prostates are malignant. As basis for his paper Willis has collected notes on 33 cases of carcinoma of the prostate. If does not state how many of the series are operated upon. He divides operation for the actual diagnosis of carcinoma. If carcinoma is present, radical cure probably cannot be effected by operation. The author summarizes reviews the proper

The average duration between the onset of symptoms and the time that the patient saw the surgeon as fourteen and one half months.

The average age as 6

1. The onset symptom as nocturnally increased frequency of micturition 4 per cent, and gradual obstruction of micturition 30 per cent of the cases.

2. Pain as variable and not characteristic.

3. Urinary obstruction as marked feature; 7 per cent had complete retention, and further 24 per cent partial retention.

4. Hematuria as not common probably 3 per cent did not show blood.

5. On rectal examination, 70 per cent showed hard nodules with fixity of the gland.

6. The average duration of the disease from the onset of the symptoms to death was 3 months.

7. Young's statistics that 20 per cent of removed prostates show malignant tendency cannot be ignored. If these figures are accepted, it is the surgeon's duty to remove the gland by operation as soon as it begins to cause symptoms. The risks of the operation are that it is smaller than the risks after malignancy has developed.

8. The treatment recommended when diagnosis of carcinoma has been made is as follows:

(a) In the absence of residual urine, give urinary antiseptic, with opium for the pain when necessary.

(b) If there is residual urine, begin catheter life, using a large-sized hard catheter—give urinary antiseptic, with opium if necessary.

(c) If there is obstruction, or if catheter life is intolerable, establish permanent suprapubic drainage. **M. S. HIRSHMAN.**

Wallace G. Some Condition Simulating Prostatic Hypertrophy. *Ch. J. 9, 3, 1909*
By Surg. Vance & Obst.

The author reports a case which simulated prostatic hypertrophy but proved not to be.

One interesting case is that of an ill projection high on removal brought the urethra and its membrane and subcutaneous tissue from the posterior urethral wall. The strand of tissue never lost its denervation.

The second case was operated upon but no enlargement found. The bladder dilated and eventually bowed to have a better result. Then although it was considered to be a case of secondary tumor the bladder was reopened and a wedge-shaped portion of normal prostate removed. The perineal edge lay about half an inch behind the urethra and the base corresponded to the posterior wall of the urethra above the perineal body. That normal function as restored indicated that the symptoms are due to tumor defect.

The author thinks that cases with kindred lesion is observed not to be a result of bending of the urethra thus a prostatic diagnosis of vesical prostatic tumor should be made with great reason.

Conclusions: (1) That many cases present symptoms which first might be considered to be caused by prostatic hypertrophy but which subsequent examination will prove to be due to other causes. (2) That prostatic enlargement can be excluded only by bimanual examination through the opened bladder. (3) That when bimanual examination proves that there is no enlargement the cause of the errors of micturition must still lie within the prostate. (4) That no error of micturition should be assigned to failure of nervous muscle until a mechanical defect has been excluded. (5) That in at least some cases the use of digital intubation is a bending of the prostate urethra and the patient can be cured by simple operation.

Lucas Gross.

Hagner and Flier. The Post-Operative Complications of Prostatectomy. *Surg. G. and Obst.*
9, 3, 1909. By Surg. Gynae. & Obst.

A study of the post-operative complications offers a field of instruction to the surgeon for his future benefit. The important complication is hemorrhage usually of venous origin. It occurs within forty-eight hours and is controlled by pressure with gauze soaked with adrenalin. The removal of the perineal drainage is facilitated by the use of oil and peroxide. If the bleeding is suprapubic catheter is passed through the urethra into the bladder. The bladder end of the catheter has knot of gauze which serves as a plug. It can be easily removed by passing a suture through the bladder end of the catheter and carrying it out through the suprapubic wound.

Thrombosis especially of the pulmonary vessels,

is a frequent complication. Sudden death may however be due to this condition. As pneumonia has to be guarded against, great care should be exercised in admitting the anesthetic. The author uses nitrous oxide and oxygen at present. Sepsis occurs less frequently in the perineal operation due to better drainage. When sepsis does take place good ample drainage and continuous irrigation is of inestimable value. The intravenous injection of salt solution and the use of vaccines are also of value.

The kidney function should be tested before operation if there are any signs of renal disease using Geraghty's phenolsulphophthalein test. Proteinuria and anemia must always be looked for in these cases. If present one should use salt solution sweat glands and other appropriate measures. The prognosis in cases with diabetes is proverbially bad. A continuation of pyuria after operation is due to infected kidneys, long-standing pre-existing cystitis or to diverticula. A thorough digital examination of the internal urethra should be made at the end of the operation to determine that no diverticula has been left, as this may necessitate a secondary operation. Post-operative urinary frequency is the result of contracted bladder or loss of control.

The peritonium should not be torn as it may lead to peritonitis. The rectum should be carefully watched as fistulae follow when it is ruptured. For the same reason silk traction sutures are not used. The fistula travels along the suture. The fistulae are usually mild and readily yield to treatment.

An operation gives more relief to a patient than properly performed prostatectomy hence the importance of pre-operative and post-operative care of the patient. Cystoscopic examination should be made to ascertain what, if any complications exist and the best way to operate.

Grisenko. Total Prostatectomy in the So-Called Prostatic Hypertrophy (Über die totale Prostatectomie bei der sogenannten Prostatishypertrophie). *Dissertation St. Petersburg* 9.

By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

The author conducted investigations on the cadaver to determine whether the prostate had a capsule of its own which would make complete excision possible. It was found that the gland possesses only one layer of fascia, which is smooth on the external surface posteriorly only and rough on the other surfaces of the gland. This fascial covering can be separated from the gland easily on the posterior surface with the exception of the median part and also on the sides. On the anterior surface it can be separated only with difficulty. A continuation of the fascia to the apex and to the base of the gland was not demonstrated and it was impossible to isolate distinct capsules. The capsule described by other authors must be considered as a part of the pelvic fascia which invests the entire gland with the exception of the base and apex.

The division of the prostate into distinct lobes is not justified from an anatomical point of view. To determine whether a gradual increase in size of the gland takes place with advancing age the author examined the prostates of sixty male cadavers between the ages of 40 and 90 years and arranged them into groups according to age. It was found that the size of the gland increases only a trifle with advancing years. On the strength of thirty-two cases examined he comes to the conclusion that prostatic hypertrophy is tumor formation (adenoma) of the glandular tissue. The principal changes occur in the central part of the gland, directly under the urethral mucosa. The author then offers microscopical proof of his contention. From the clinical standpoint his views are reinforced by the progressive character of the disease by the occurrence of malignant degeneration and by the possibility of recurrence.

The author offers further evidence that these adenomas originate in the peripheral glands. Although the prostate grows in size it retains its normal contour; the enlargement is at the expense of the antero-posterior diameter. The glandular tissue of the prostate is divided by the smooth sphincter of the urethra into a central and peripheral part of peripheral glands. With the enlargement of the peripheral glands the sphincter of the urethra is forced backward. The peripheral zone is the true prostate glandular tissue. The musculature of the prostate and the musculature of the pars prostatica urethrae are really inseparable, being practically one. On account of this musculature close relation exists between the prostate and its surrounding structures.

As a result of his operative experience and investigations on the cadaver the author comes to the conclusion that complete extirpation of the prostate in the histological sense is impossible without causing lesion of the pelvic fascia and ejaculatory ducts. The adenomatous enlargements of the prostate are much more accessible from the bladder than from the perineum. During prostatectomy the entire gland is not enucleated but only its adenomatous part. In the living man a large part of the gland remains intact which may be considered as the surgical capsule and which prevents the opening of the preprostatic venous plexus and of the pelvic connective tissue. Experience teaches further that in view of the close relationship of the urethral mucosa to adenomatous tissue, part of the former is sacrificed at the prostatectomy. The ejaculatory ducts as a rule remain intact during the removal of the adenomatous masses. The author prefers the transvesical route to the perineal for the following reasons. Technically the operation is easier; hemorrhage is less; thorough drainage from the wound is obtained; and in infected cases and in old individuals the operation may be performed in two steps. Above all, the excellent results obtained by it favor the suprapubic route. An extensive bibliography and four microphotographs are appended.

HANSEN.

Moore. Prostatectomy in the Aged. *Intern. M. J.* 9 3 xv, 643. By SORE, Gynec. & Obst.

The author submitted a series of questions to the genito-urinary surgeons in this country and abroad with reference to their experience in prostatectomy in the aged. From the answers received he compiles the following:

Twenty surgeons reporting successful perineal prostatectomies gave the highest age of their patients as ranging from sixty-three to eighty-nine years. Twelve had operated successfully on men over eighty reporting, in all, thirty cases between eighty and ninety.

Eighteen surgeons reported successful suprapubic operations upon patients whose ages were from sixty-six to ninety. Thirteen of these had operated successfully upon men over eighty reporting fourteen cases.

Of the twenty-five surgeons who expressed an opinion, all but five were in favor of prostatectomy in the aged where general conditions are satisfactory and local conditions indicate an operation.

The mortality of less than two per cent following prostatectomy in the absence of serious complications, is contrasted with death rate of over five per cent for enlarged prostate treated by catheterization.

The author reports ten cases of perineal prostatectomy in patients ninety years of age, in which his results were prompt and satisfactory. He concludes that catheter treatment of enlarged prostates is unsurgical and unsafe; that prostatectomy is the best treatment that it is nearly as safe in the very aged as in younger men; and that it is the consensus of opinion that there is no harm to prostatectomy and the operation should therefore be performed whenever practicable. TOWN & C. HOLLOWAY.

MISCELLANEOUS

Pfister. Urethralsteine und Bilharzialsteine (Urethralsteine und Bilharzialsteine). *Arch. f. Schiffs- u. Tropenhyg.* 9 3, xvii, 300. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Until now the views held in regard to the direct relations between bilharzialia and the frequent occurrence of stone in the urinary passages have been divided: one group of men maintaining that all stones in the urinary passages are due to bilharzialia, and the other group maintaining that the increased amount of mineral matter in the water of the Nile during the summer is responsible. The fact remains, however, that those investigators who examined large numbers of stones found bilharzia eggs in their centers much more rarely than was expected.

Pfister calls attention to the fact that frequently little nodules are found in the center of stones. These nodules are the result of drying and calcification of the fluid present in the small cystic bodies found in cystic cystitis of bilharzialia. Further, moreover, these little nodules found in the so-called

sandy bladder are the result of calcification of lit the ulcers resulting from penetration of these little eggs into the bladder. Therefore we must also consider stones containing such little nodules as due to bilharziads. In thirty stones carefully examined along modern lines, Pfister found bilharzia eggs only three times positively in three instances bilharzia eggs were probably present. Other interesting points are discussed, tending to show that in Egypt a bilharzia infection predisposes to stone formation.

KUNNING.

Freund E. Experiences with Arthigen in Complications of Gonorrhoea (Erfahrungen mit Arthigen bei den Komplikationen der Gonorrhoe). *Wsch. med. Wochenschr.* 93, heft 530.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author treated 3 cases of acute gonorrhoeal epididymitis with injections of 0.5 gm. of arthigen and obtained good results in 2 cases. In one case of chronic epididymitis four injections had no effect. Seven cases of acute prostatitis were promptly cured. In five cases of chronic prostatitis and three of anterior gonorrhoeal urethritis the injections gave no results. One case of posterior gonorrhoeal urethritis and lymphangitis was considerably improved by two injections. Also in cases of gonorrhoeal arthritis were influenced favorably. Forty-two cases were treated in all.

Freund's conclusions are as follows: 1. Arthigen is a specific remedy of great diagnostic value in doubtful cases. It is perfectly harmless. 2. It is of great therapeutic value in acute gonorrhoeal epididymitis, acute gonorrhoeal arthritis, and sometimes in acute gonorrhoeal prostatitis. Especially in epididymitis the vaccine therapy is superior to all other known methods and remedies because it relieves the patient immediately and shortens the time of treatment for the entire gonorrhoeal affection. According to the recommendations of Bruck, Freund treated only those cases in which there was no fever. Numerous other authors have reported favorable results with this therapy. *MAJOR.*

Kollecher G. Mid-Operative Diagnosis in Urologic Operations. *J. Am. Med. Assn.* 93, heft 74.
By Surg. Gynec. & Obst.

The object of this paper is to emphasize the importance of mid-operative diagnosis in urological operations after the organ has been exposed, and the fact that operative procedures must often be adjusted to the conditions discovered.

In most instances of external urethrotomy it is impossible to decide definitely whether to perform a mere splitting operation or to resect until the urethra is exposed.

In Hagner's epididymotomy the location and the extent of the depleting incisions cannot be decided

upon until the testicle and its appendages have been fully exposed to view and palpatory examination has been made. The same holds good for tuberculous involving the epididymis.

In suprapubic prostatectomy the macroscopic differential diagnosis between simple hypertrophy and cancer and between hypertrophy and an edema of the prostate cannot be made until the bladder is opened.

In cases of extensive tumors of the bladder especially those in which the tumors are near the base of the viscus, and in which extensive resection or complete extirpation of the bladder is contemplated, these questions can be decided best by exposing the bladder, digging it out of its surroundings without opening it, and in this way making it accessible for immediate palpatory examination.

In kidney surgery the mid-operative diagnosis is of great help. Unusually free hemorrhage in the approximating incision will call the attention of the operator to the presence of adhesions and the possibility that the causative inflammation has involved the peritoneum and glued it to the kidney. The operator should therefore use extreme caution not to break into the serosa. Any edema discovered surrounding the ureter on its course down to the bladder is as a rule of mechanical origin and indicates that the ureter is kinked. The ureter therefore, will have to be exposed and the obstruction removed before its patency can be re-established.

Bimanual palpation of the exposed kidney will in certain cases furnish information which is absolutely decisive as to the choice between nephrectomy and nephrotomy. This decision can be made before the kidney is opened. For instance, in coli or streptococci infections of the kidney involving a small area, especially those located in the neighborhood of the pelvis, the chance of cure by drainage is good. On the contrary, if palpation of an enlarged kidney infected by the colon or the streptococcus bacillus reveals the presence of numerous adered spots and number of softened areas an extensive hard infiltration of the renal parenchyma, or fluctuating necrosis, the kidney should be removed unopened.

In cases of renal concretions combined palpation of the exposed kidney will be of great advantage. After splitting open the renal pelvis it will enable the surgeon to explore the calices and locate concretions higher up in the parenchyma and will also facilitate the sounding of the ureters.

In perineal suppurations the mid-operative diagnosis will influence the diagnosis between an infected perineal hematoma or superficially infected focus in the surface of the kidney.

In conclusion the author covers some of the most important points in which mid-operative diagnosis will show its value in urological work.

THEO. DROMOWITZ.

SURGERY OF THE EYE AND EAR

EYE

Ohlman and Severin present the Eyes and Face by So-Called Water-Cure and Zodiak Golf Balls; Methylalcohol and Golf Ball (Anger and Geschwulstentumoren-schwerer Art durch eine nannte Water-Cure und Zodiak Golfballe oder Methylalcohol und Golfballe) *Klin. Wochenschr.* 9, 3, 32, 604.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

The author points out the fact that the rubber core of the above mentioned golf ball is replaced by a heap of fluid or cement like an alkaline reacting mass which is under high pressure and the chemical composition of which is a trade secret. If a ball of this kind is opened, it is so content to explode violently and injure the hands of the clothing of the bystanders just as would a corrosive fluid. Two hours later the ball is greatly swollen, and reddened the conjunctiva of the lids as well as the bulb is on erythematous grey mass and the corner of the eye is swollen and the part below opaque and milk. There is marked chemosis and diminished vision. After a week leukocytosis with high polymorphonuclear develops in the lower quarter of the cornea, which is covered with superficial blebs. The epithelial tissue later becomes pale, scarred and densely opaque. The eyes are red, the cornea blebs the cornea becomes clearer after the use of boracic tropsine bulbar and a leucocyte count of portions of physiological salt solutions. This is not the case. The author believes that the rubber ball of the latter the opacity of the cornea is permanent. Because the extremely dangerous methylalcohol has so often been administered under another name in spite of the fact that the author assumes justly that the balls mentioned which are produced in America may be introduced into Germany. If therefore warns against the use of them.

Von H. A.

Stephenson B. Some Remarks upon the Diagnosis and Treatment of Lacrimal Affections. *Clin. J.* 9, 3, 32, 5. By Surg. Gynec. & Obst.

Stephenson says that we do not now take once assume that a tearing is the result of an organic stricture as was at one time the case. A surgeon eliminates such causes if epiphora as displaced or occluded punctum or chronic nasal tarsi. If no obvious cause is found, fluorescein is dropped into the conjunctival sac and if it passes into the nose. Treatment of the conjunctival sac and nose should be carried on for several weeks, and if this fails, lacrimal syringe may be used. Even if fluid does not pass through in the first few trials it is probable that this plan will succeed if the condition has not been treated by probe.

Stephenson warns of the danger of using any, not of protruding under pressure. If the syringe is of no avail, use may then be made of the probe or the sac may be extirpated, or Total operation may be performed. A discussion of these measures follows.

C. G. Daxner.

Stephenson S. Clinical Lecture on the Treatment of Glaucoma, with Particular Reference to the Newer Operations. *Med. Press & Circ.* 9, 3, xvi, 37. By Surg. Gynec. & Obst.

Stephenson takes up the treatment of glaucoma under three headings: (a) first aid (b) surgical aid (c) palliative treatment. Under first aid he discusses subconjunctival injection of sodium citrate, posterior sclerotomy, iridectomy and diodes. Under surgical treatment he discusses iridectomy and its modifications, Lagrange's, Elliot's, Heine, Helze, Ferguson, Netterman's, the Thread, Herbert and Hiltz operations in detail. He does not think that palliative treatment should be long continued.

C. G. Daxner.

Frenkel H. Capillary Angioma of the Retina. *J. Ophth. Otol. & Laryngol.* 9, 3, 33, 33. By Surg. Gynec. & Obst.

Frenkel reports a case of his own of capillary angioma of the retina, and reviews the similar cases which have been published.

In reviewing his own case he says: The question is that of the origin of capillary angioma of the retina characterized by the occurrence of locations more or less distant from the papilla of little spots, bright this instance in the place where the retinal capillaries are presumed to be. These little spots are at first but can affect and an afferent vessel. Gradually they increase in size and at the same time the vessels between which they occur become more apparent. Then we can perceive that as the bodies become larger there is corresponding exaggerated development of the arteries and veins which are dilated, turgid, tortuous. At this stage we can see more than two vessels butting upon the same body even if the bodies are communicated by intermediary dilated vessels.

This section begins very vividly provoking first subjective troubles — sensation of smog before the eyes, mist, mucous volutions and finally at the end of several months or may be year lowering of visual acuity. Object recognition have been noted at the periphery of the visual field, it is true with some difficulty. In one case they developed simultaneously in the two eyes.

In antecedents, we find sister blind in both eyes at the age of 5 and 8 years. The patient

affection began after his military service, at the age of about 3 or 34 years.

The ophthalmoscopic appearance at this stage of the disease is very characteristic and is similar to figures of analogous cases published in ophthalmic literature. C. G. DAVISON.

Verhoeff F H Parinaud Conjunctivitis: A Mucocytic Disease Due to a Mithert Undescribed Filamentous Organism. *Arch Ophth.* 9 3, 212, 345. B Surg. Gynec. & Obst.

The findings reported in this article are given in the conclusion. In eleven out of twelve consecutive cases, each having the clinical features described by Parinaud and each presenting essentially the same characteristic histological picture, a minute filamentous micro-organism was found. The absence of any other demonstrable micro-organisms in the lesions, the special character of the micro-organisms found, their great abundance and the fact that they are not situated as typical lesions, leave no reasonable doubt that they were the cause of the disease. They occur in the areas of cell necrosis previously pointed out by us, confirming the diagnostic importance of these areas.

The clinical findings in all the cases consisted of conjunctival granulation, the smaller, larger, but areas on their surface, the enlargement of the preauricular lymphatic gland. Histologically in all of these cases for all areas within the endothelial phagocytes in various stages of necrosis were found. These cells, in a disordered arrangement. There were no polymorphous plasma cells and almost no pus cells. The organism was made visible by staining by modified Gram stain which is described in the article. LARRY B FOWLER.

Hirsch C. Sympathetic Nystagmus in Crystalline (Sympathetic Nystagmus) be Principally. *Deutsche med. Wochenschr.* 1903, 29, 3. By Dr. Carl F. D. G. Chir. Wenzelb.

Spontaneous yet grossly movable horizontally rotatory with eyes directed laterally or upward and downward almost constant symptom of bilateral crystalline cataracts. The vestibular apparatus itself is not injured. This phenomenon may be of great importance in the differential diagnosis. V. RUD.

Vall Cerebral Localization from the Standpoint of the Oculist. *Lancet-Clark* 9 3, 11, 60. By Berr. Gyn. & Obst.

Ninety per cent of brain cases present definite eye symptoms, and these are of value in localization. When studied in connection with other symptoms. Of the symptoms most often noted, those considered are:

- (1) Conjugate paralysis and conjugate spasm of the muscles.
- (2) Pseudo-nystagmus and ystagnus.
- (3) Strabismus and disjunctive movements of the eyes.
- (4) The pupils.

(5) The fields of vision, ocular and mind blind spots.

(6) Optic neuritis.

The author takes up each group and discusses its significance with special emphasis on brain tumor localization. EARLE B FOWLER.

EAR

Gillemin M. A Contribution to the Pathogenesis and Treatment of Pharyngeal Collections of Otitic Origin (Contribution à la pathogénie et traitement des collections pharyngiennes d'origine otique). *Thèse de Nancy* 9 3, 1903. By Journal de Chirurgie.

Retro- and lateropharyngeal abscesses following otitis are quite rare. They are generally considered very serious. In 9 cases collected by Collinet in 1895 there were 8 deaths.

Guillemin reports 3 very interesting cases of retro-pharyngeal abscess of otitic origin that were cured and he attempts to show that contrary to current opinion this termination to otic suppuration is favorable.

The most interesting chapter of his work is that which deals with the pathogenesis. Guillemin does not speak of deno-phlegmons. He studies only the abscesses of otitic origin that are accessible to new exploration.

Otitic infection may spread to the retro-pharyngeal cellular tissue by three routes. By way of the bones. The pus gains the sub-labyrinthine group of the mastoid cells and thus arrives at the extreme point of the temporal bone. It then reaches either the tensor lacerated of ramus, the interior of the lateral pons, or the pharynx. The ant-labyrinthine group, which extends along the Eustachian tube. Also the pus may follow the groove in the mantle of the brain and reach the peritubal and peripharyngeal cellular tissue.

By the endocranial route. The pus collected secondarily upon one of the two endocranial sides of the temporal bone may spread from behind towards the anterior lacerated of ramus, the occipital passage or the tensor condylar passage, this being the common route. In sinus-diploic mastoiditis with suboccipital subpetrous and pharyngeal tracts.

3. By the vocranial route. The pus after spontaneous trepanation of the cavity or of the antrum, gains the base of the skull. Here it follows the stylo-pharyngeal aponeurosis and thus reaches the lateral side of the pharynx.

On the basis of his theory that latero-pharyngeal abscess in the course of otic suppuration is a favorable symptom leading to rapid cure, Guillemin asks if it could not be permissible in cases of prolonged suppuration of the base of the brain to favor drainage of the suboccipital pus toward the pharynx. This may be accomplished by opening for it carefully route following the condylar canal lateromedially to the external side of the occipital condyle. L. SKEETER.

SURGERY OF THE NOSE, THROAT AND MOUTH

Kyle: The Nasal Septum and Its Relationship to the Syndrome of Sphenopalatine Ganglion Neurosis. *Intern. M. J.* 9 3 21, 65.
By Surg., Gynec. & Obst.

With irritation of the complicated nervous mechanism of the attic of the nose the impressions are easily carried by way of the trifacial nerve to the nuclei of the facial and vagus nerves in the medulla. The result of irritation of the motor sensory and sympathetic nerve fibers is far reaching, and nutritive or cardiovascular changes are to be expected. Some of the symptoms are constriction, mental apathy, feeling of fullness in the tip of the nose, sometimes nausea, and skin manifestations characteristic of pronounced vasomotor disturbance. Anisocoria, migraine, or pain in the temple or eye ball may be experienced.

A mucous resection of a deflected septum is the first operative procedure, to be followed by operative treatment of the middle turbinate body or sinuses only if necessary.

The author also describes the sensory nerve supply of the nose and advocates local anesthesia by the injection of 1 per cent cocaine solution along the course of these nerves. *LESLIE B. FOWLER.*

Klestadt: Surgery of the Nasal Sinuses (Die Chirurgie der Nebenhöhlen der Nase). *Ergebn. d. Chir. Orthop.* 9 2, 1, 25.
H. Zentgraf, 1. d. ges. Chir. Greengrub.

The monograph considers the literature of the last three years, references the progress made in the pathology and therapy of the diseases of the nasal sinuses. Onoda investigated the variations of the frontal sinus of 200 skulls. In 5 per cent he found a bilateral absence, in 1 per cent unilateral absence of this sinus. After short discussion of foreign bodies and injuries of the sinuses he goes into detail in regard to the antrum. Etiologically infectious diseases are important; the rhinogenous genesis, however, is the most frequent. Acute rhinitis is the most frequent source of infection. Diseases of the teeth also enter into consideration in maxillary sinus infections. Pathologically acute and chronic inflammations of the antrum do not differ from other mucous membrane inflammations. For the diagnosis exploratory irrigations are of extreme importance and are discussed in detail. Exploratory puncture of the antrum from the alveolar process should be performed only in dental empyemas. In the other cases punctures should be made from the middle nasal cavity, being more easily performed in this way than from the inferior cavity. Irrigation of the frontal sinus is relatively easy by means of Killian's long speculum with which the middle tur-

binates can be lifted. All force is to be avoided on account of the danger of injuring the lamina cribrosa. Transillumination is applicable only to the antrum. Radiography has been extensively employed especially in doubtful cases in children and in the unconscious. Clinically the inflammations of the antrum have been divided into simple and complicated. Facial, oculo-orbital, and intracranial complications have been studied thoroughly in the last few years. Van der Hoeve's symptom, enlargement of the blind spot of the eye, is of importance in diseases of the posterior ethmoidal cells and of the sphenoidal sinus. This symptom, however, is not constant according to Markbrecher's investigations.

In regard to the treatment of inflammations of the antrum the author emphasizes that radical extranasal operations should be performed only after unsuccessful purely conservative means and the lesser endonasal procedures. By these measures patients with antrum infections can almost certainly be cured, and the majority of those with frontal and sphenoidal sinus infections as well. In combinations of the two and a ethmoidal sinus superinfection the prognosis must be guarded. Excellent results are obtained with the radical operation of Caldwell-Luc in antrum superinfections. According to Bönnighaus almost 100 per cent of cures are obtained. The endonasal radical operation on the ethmoidal cells frequently can not be performed in one session. Many times a cure is obtained only after several attempts. The extranasal operation is to be performed if the endonasal operation results in no improvement and in the presence of cerebral complications. The same applies to the radical operation on the sphenoidal sinus. The radical operation on the frontal sinus is best performed according to Kuhns' method. According to Bönnighaus a statistics (10 cases) a cure is obtained in 9 per cent of the operation. The mortality is 2 per cent. All sinus operations may be performed under local anesthesia according to the method of Braunsch, although general anesthesia is frequently necessary. In conclusion the author discusses other rare specific infections and other diseases of the sinuses of importance in the differential diagnosis, such as osteomyelitis, cysts of the superior maxilla, mucocoeles, and blastomas. *KANTLER.*

Mittbecker: Alcohol Injections into the Superior Laryngeal Nerve in Tuberculous Laryngitis. *Ohio St. M. J.* 9 2, 12, 3.
By Surg., Gynec. & Obst.

Alcohol injections are a valuable adjunct to the palliative treatment of tuberculous of the larynx, especially that form of the disease in which great

involvement of the superior orifice of the larynx exists—the stylo-epiglottic type. The presence of a painful spot located at a point where the internal branch of the superior laryngeal nerve pierces the thyrohyoid membrane is a positive indication.

The technique is simple. The needle (one not too sharp) is inserted $1\frac{1}{2}$ cm. over the painful spot. The direction of the needle is then turned upward and outward toward the ear and fifteen to thirty drops of 80 per cent alcohol (warm) are injected.

CARLE B. FOWLER.

Masland. Antral Empyema with the Presentation of an Efficient Conservative Operation for Its Cure. *N. Y. M. J.* 9, 5, 1916, 90.

By Surg. Gynec. & Obst.

In treatment of inflammation of the antrum after the formation of pus, it is necessary to establish good drainage and to afford an easy means of irrigation. Thus the author does by drilling through the nasal wall at the floor of the nose using a straight drill, and inserting a permanent cannula about 4 cm. long. The irrigation may be carried out by the patient inserting the end of an all-rubber ear syringe into the mouth of the cannula. CARLE B. FOWLER.

Murphy. Use of Palatal Mucous Membrane Flaps in Ankylosis of the Jaw Due to Cicatricial Formations in the Cheek. *J. Am. M. Ass.* 9, 3, 1916, 145.

By Surg. Gynec. & Obst.

The author reports two cases in which this original method was successfully used. The flaps were of mucous membrane pedicled and obtained from the palate or floor of the mouth. On examination the first case showed complete immobility and no pain or tenderness pressure over the joint. The roentgenogram showed that there was no bony ankylosis. Through an external incision the jaw bones and articulation were exposed and fibrous extra-articular ankylosis was demonstrated. What remained of the alveolar processes were removed and when the attachment of the temporal muscle was divided the jaw dropped.

A tongue-shaped pedicled flap was dissected from the palate, the base of the flap being toward the back of the mouth, the inner limb of the incision being about a quarter of an inch shorter than the outer. When this was reflected outward to cover the bone of the upper jaw which was denuded by the chiseling, there was no contraction which might interfere with the circulation of the flap. The sides of the flap were sutured with very fine catgut to the margins of the gums and the tip was anchored to the cheek. A small pledget of antiseptic gauze was placed between the jaws. The

mucous membrane of the cheek was carefully approximated with fine catgut and the skin incision closed with horsehair. The wound was dusted with bismuth sub-iodide powder and plain sterile gauze applied. A wedge of folded gauze was placed between the teeth, which was within a week replaced by a wooden wedge, with which the patient spread the jaws. Four weeks after the operation she was able to open her mouth about an inch without assistance. Four months later the patient wrote that she could open her mouth about an inch and a half.

In the second case the cicatricial tissue was carefully divided and two tongue-shaped flaps interposed, one obtained from the floor of the mouth and the other from the palate. Both flaps were about two and one half inches in length and from one half to one inch in width. The result of the operation was entirely satisfactory. The patient left the hospital in five weeks and was able to open her mouth unaided about an inch. H. A. FORRIS.

Skiffers, P. G., Jr. Infiltration of the Lingual Nerve for Operations upon the Tongue and for the Relief of Pain in Inoperable Carcinoma. *Surg. Gynec. & Obst.* 9, 3, 1916, 14.

By Surg. Gynec. & Obst.

Confronted with an ulcer of questionable malignancy in the anterior two thirds of the tongue, in which excision was indicated, it occurred to the author to induce anesthesia by infiltration of the lingual nerve instead of by the more painful intra-lingual injections. The nerve was reached one half inch below and behind the third molar tooth, where it crosses the line projected between that tooth and the angle of the mandible. Submucous injection of 4 cc. of 1 per cent novocain and adrenalin, 3000, induced anesthesia in the anterior two thirds of the tongue within five minutes. Neither the excision of the ulcer nor the Paquet's cauterization were felt. A second patient had inoperable carcinoma with chronic pain. Injection at the same site of 1 cc. of 1 per cent novocain and adrenalin, 3000 in 4 cc. of 7 per cent alcohol induced analgesia in ten minutes. The following night the patient slept more soundly than he had slept for two months. In bilateral injections the tongue loses its power of determining temperature, so the patient should be warned to test the temperature of his food with his lips. Infiltration of the mandibular nerve is warranted only where growth or the absorption of the alveolar process after the shedding of the third molar tooth, has destroyed the landmarks of the lingual nerve.

SURGERY OF THE NOSE THROAT AND MOUTH

Kyl : The Nasal Septum and Its Relationship to the Syndromes of Sphenopalatine Ganglion Neurosis. *Intern. M J* 93, 21, 65.
By Surg. Gynec. & Obst.

With irritation of the complicated nervous mechanism of the attic of the nose the impressions are easily carried by way of the trifacial nerve to the nuclei of the facial and vagus nerves in the medulla. The result of irritation of the motor sensory and sympathetic nerve fibers is far reaching, and nutritive or cardiovascular changes are to be expected. Some of the symptoms are constriction, mental pathy a feeling of fullness in the attic of the nose, sometimes nausea, and skin manifestations characteristic of a pronounced vasomotor disturbance. Asthenopia, migraine or pain in the temple or eye ball may be experienced.

Submucous resection of deflected septum is the first operative procedure, to be followed by operative treatment of the middle turbinated body or sinuses only if necessary.

The author also describes the sensory nerve supply of the nose and advocates local anesthesia by the injection of 1 per cent cocaine solution along the course of these nerves. ELLIS B. F. WILKINSON

Kleinert : Surgery of the Nasal Sinuses (Die Chirurgie der Nebenhöhlen der Nase). *Ergebn. d. Chir. u. Orthop.*, 1933, 1, 18.
By Zentralbl. f. d. ges. Chir. Gynecolog.

The monograph considers the literature of the last three years in reference to the progress made in the pathology and therapy of the diseases of the nasal sinuses. Onodi investigated the variations of the frontal sinus of 200 skulls and found 15 per cent bilateral absence in 1 per cent unilateral absence of this sinus. After a short discussion of foreign bodies and injuries of the sinuses he goes into detail in regard to the antra. Etiologically infectious diseases are important the rhinogenous genesis, however is the most frequent. Acute rhinitis is the most frequent source of infection. Diseases of the teeth also enter into consideration in maxillary sinus infections. Pathologically acute and chronic inflammations of the antra do not differ from other mucous membrane inflammations. For the diagnosis exploratory irrigations are of extreme importance and are discussed in detail. Exploratory puncture of the antrum from the alveolar process should be performed only in dental empyemas. In the other cases punctures should be made from the middle nasal cavity being more easily performed in this way than from the inferior cavity. Irrigation of the frontal sinus is relatively easy by means of Killian's long speculum with which the middle tur-

binates can be lifted. All force is to be avoided on account of the danger of injuring the lamina cribrosa. Transillumination is applicable only to the antrum. Radiography has been extensively employed, especially in doubtful cases in children and in the unconscious. Clinically the inflammations of the antra have been divided into simple and complicated. Facial, oculo-orbital, and intracranial complications have been studied thoroughly in the last few years. Van der Hoeve's symptom, enlargement of the blind spot of the eye, is of importance in diseases of the posterior ethmoidal cells and of the sphenoidal sinus. This symptom, however is not constant according to Markreiter's investigation.

In regard to the treatment of inflammations of the antra the author emphasizes that radical extranasal operations should be performed only after unsuccessful purely conservative means and the lesser endonasal procedures. By these measures patients with antrum infections can almost certainly be cured, and the majority of those with frontal and sphenoidal sinus infections as well. In combinations of the two and of ethmoidal sinus suppurations the prognosis must be guarded. Excellent results obtained with the radical operation of Caldwell in antrum suppurations. According to Forstner almost 100 per cent of cures are obtained endonasal radical operation on the ethmoid frequently cannot be performed. Many times cure is obtained on attempts. The extranasal operation is formed if the endonasal operation proves and in the preoperations. The same applies to the sphenoidal sinus. The frontal sinus is best treated by the Killian method. Accurate statistics of cases of the operation of the sinus operations anasthesia accord through general anesthesia. In conclusion infective infection of the maxillary sinus of the maxillary sinus.

ALL

palpation especially the

The Eubogen duodenal tube and its uses. S. K. SIMON
N. Orl. M. & S. J. 9 3, lvi, 4.

New instruments for the duodenum and the small
intestine. EISENHART. Berl. klin. Wchnschr. 9 3, 1,
No. 29.

The urethroscope—its importance in urethral pa-
thology. Diagnosis and treatment. S. ENGELHARDT. Cleve-
land M. J. 9 3, xii, 475.

A new diastereographic apparatus. I. S. HINSON
N. Y. M. J. 9 3, xvii.

A arm water supply for the operating room with a
simple arrangement of the wash basin. BUCKNER. Zen-
tralbl. f. Chir. 9 3, xl, N. 20.

The employment of spreading springs in the treatment
of persistent proctitis. THURM. Zentralbl. f. Chir. 9 3,
xl N. 29.

SURGERY OF THE HEAD AND NECK

Head

Successful treatment of cancer of the face by simple
puncture with ferrous oxide. H. SPRENG. Ztschr. f.
Krankh. 9 3, xii, 30. [1978]

A case of plastic repair of the face for marked post-
operative deformity and of canalization of the canal of
Stenson because of salivary fistula. M. ST. BOLL. d. sc.
med., Bologna, 9 3, lxxvii, N. 6.

Crossing of the spinal facial nerve in traumatic paralysis
of the facial nerve. PAVONI. Policlin. Roma, 9 3, xv,
No. 29.

Treatment of facial neuralgia. BARNARD. J. d. prati-
cians, Par. 9 3, xxxv, N. 29.

Electrical treatment of neuralgia of the trigeminal nerve.
ALBERT WIRTH. Par. med. 9 3, N. 33.

The dextroserous cure by injection of alcohol into the
ganglion. G. THURM. Arch. internat. de
laryng. otol. et de rhinol. Par. 9 3, xxxi, No. 3.

Operative cure of tumor of the parotid gland.
SACCHI and BIANCHI. Berl. klin. Wchnschr. 9 3, N. 30.
Salivary calculus. E. VAS and BORN. low. M. J.
9 3, xii, 4.

Excision of diffuse and marked suppurations of the
parotid gland. MONTAUDO. Gas. d. osp. Par. 9 3,
lxxvii, 86.

Osteoplastic repair of congenital and acquired defects of
the inferior maxilla. GONZALEZ. Deutsche Ztschr. f. Chir.
9 3, cxxvii, No. 2.

Treatment of fractures of the inferior maxilla according
to the simplified method of MARTIN. SPRENGER. Arch.
prov. de chir. Par. 9 3, xiii, No. 5.

Analysis of jaw—interposition of flap from mucosa of
mouth. J. B. M. SMITH. Surg. Clin. J. B. Murphy.
9 3, x, No. 5. [1978]

The lumen of the maxillary sinus. L. GRADWALL. Arch.
Hef. 9 3, xlvii, 267.

A bullet in the maxillary sinus. FALLAS. Arch. internat.
de laryng. otol. et de rhinol. Par. 9 3, xxxv, N. 3.

The cosmetic value of the radical operation on the
frontal sinus after the method of Killian. N. VITALE.
Budapest. Orvosi Ujsag. Gógyász. 9 3, xii, 3.

Facial paralysis as a feature of the petrous part of the
temporal bone. DIE STRELLA. Arch. internat. de laryng.
otol. et de rhinol. Par. 9 3, xxxv, No. 3.

Treatment of fractures of the petrous part of the tem-
poral bone. H. NORDEN and A. NORDEN. Rev. de chir.
Par. 9 3, xxxvii, N. 7.

Motor aphasia as the sole immediate effect of cranial
trauma. M. TÖRNER. Deutsche med. Wchnschr. 9 3,
xxxvii, 246.

A case of sub-acute psychosis following cranial trauma.
F. ULLMANN. Psychiat. neurol. Wchnschr. 9 3, xv, 8.

A case of injury of the skull by bullet from fire-arm
of small caliber which resulted fatally. MOKHAROV.
Voenno-med. J. St. Petersburg. 9 3, cxxviii, July.

Reduction of the blood content in operations on the
skull. REINER. Arch. f. klin. Chir. 9 3, cl, No. 4.

Plastic cranial surgery in old depression fractures.
HORNBERG. Zentralbl. f. Chir. 9 3, lx, No. 8.

Thirty heads in mesial section. R. H. WOOD. Med.
Rec. 9 3, lxxvii, 6.

The epidural space. HIRSH. Arch. f. klin. Chir. 9 3,
cl, N. 4.

Right hemiplegia associated with aphasia caused by
epidural hematoma resulting from an injury of the head,
cured without intervention. EMMI. Riv. osp., Roma.
9 3, cl, No. 4.

The employment of utoplastic transplantation of fat
in defects of the dura and the brain. E. REINER. Arch. f.
klin. Chir. 9 3, cl, 96.

Thrombosis of the cavernous sinus in traveling five
months of age. EISENHART. München. med. Wchnschr.
9 3, lx, N. 26.

Meningitis due to cryptococcus which developed with the
picture of bacterial tuberculous meningitis. BIRNBOIM.
Deutsche Ztschr. f. Nervenh. Leipzig. 9 3, xlvii-xlviii
Festschr. Struppell, 837.

Traumatic serous meningitis. SCHULZ. Deutsche
Ztschr. f. Nervenh. 9 3, xlvii-xlviii Festschr. Struppell,
697.

Three cases of traumatic meningocele. ROCHER. J.
de med. de Bordeaux, 9 3, xlii, N. 7.

Basilarophthalmic-meningocele. KORDANOV. Mo-
natschr. f. Geburtsh. u. Gynäk. 9 3, xxxvii, No. 1.

Double frontal abscess, serous meningitis, operation
recovery. E. J. BROWN. Med. Rev. Rev. 9 3, xlii,
49.

Bacteriological study of case of hemorrhagic myelo-
meningitis. G. A. RUTHER. Med. Rec. 9 3, lxxvii, 246.

Secondary epiduralization of myelomeningitis. BORN-
MANN. Virchow's Arch. f. path. Anat. etc. Berl. 9 3,
cxxxv, No. 1.

Traumatic epilepsy—report of four cases following
cerebral concussion surgical treatment with recovery.
T. KIRCHMANN. Physicum & Surg. 9 3, xxxv, 296.

The treatment of (traumatic and non-traumatic)
cortical epilepsy. RASTENBERG. Arch. f. klin. Chir.
9 3, cl, No. 4.

Operative treatment of traumatic epilepsy. KORDANOV.
Deutsche Ztschr. f. Nervenh. Leipzig, 9 3, xl, 8-xlviii
Festschr. Struppell, 32.

Kocher's operation for traumatic and idiopathic epilepsy.
A. SCHWENKE. Louisville Month. J. 9 3, xx, 23.

Brain decompression operations. H. H. HINSON. Lan-
cet-Clin. 9 3, cl, 65.

The albumin content of the cerebrospinal fluid, its al-
bumin reaction in normal and pathological cases. A.
ZALOMONOV. Deutsche Ztschr. f. Nervenh., Leipzig, 9 3,
xlvii-xlviii, Festschr. Struppell, 783.

Fracture of the corpus callosum. LEONHART. Presse
méd. Pa. 9 3, xli, No. 6.

Cerebral tumors. O. TILMANN. Verhandl. d. Gesellsch. deutsche Naturf. u. Arzt. 9 3, 11, 30.

General symptoms and their value in the early diagnosis of cerebral tumors. LAND V. Praegl. klin. Wochenschr. 9 3, 11, Nos. 7 and 8.

An instructive false diagnosis in tumors of the brain. MILLER. Deutsche Zeitsch. f. Nervenh. u. Leibeskr. 9 3, 11, 31, 32.

Cerebral tumor caused or aggravated by trauma. KRATZ. Zeitsch. f. Neurochirurgie, 9 3, 1, 3.

Papillary stalks on cerebral tumors. TERRIER. Progrès méd. Par. 9 3, 1, No. 3.

T. cases of circulatory disturbances of the brain. C. E. ROOS. J. Am. M. Ass. 9 3, 11, 48.

Extraction of a bullet from the third ventricle of the brain. A. ECKHART and J. P. KASPER. Wien. klin. Wochenschr. 9 3, 11, 5.

Metastatic abscesses of the brain and their relations to hepato-pulmonary sepsis. COUETEAU. Rev. de chir. Par. 9 3, 11, No. 7.

Symposium on brain surgery. R. I. GRAM. Lancet. Clin. 9 3, 11, 58.

Concussion due from quarter century onk in brain surgery. ROWELL PARK. N. Y. St. J. Med. 9 3, 11, 101. [1906]

The cerebellum of birds, with notes on the problems of localization in the cerebellum. B. BROOKMAN. Folia neurobiol. 9 3, 349.

Experimental cancer of the cerebellum. RONCALL. Clin. chir. Milano, 9 3, 11, No. 6.

A case of tumor of the cerebellum. ALLEN and MELEN. Rev. de chir. med. de Barcel. 9 3, 11, 11.

T. cases of cerebellar disease followed by autopsy. W. F. SCHILLER. Calif. St. J. Med. 9 3, 11, 11.

Occlusion of the posterior inferior cerebellar artery report of case. G. W. ROBINSON. J. Am. M. Ass. 9 3, 11, 70.

Acromegaly. REINHARDT and GREENFIELD. Ber. path. Anat. allg. Path. Jena. 9 3, 11, No.

Acromegaly. P. T. H. XI. Indianapolis M. J. 9 3, 11, 70.

Tumor of the hypophysis in case of acromegaly. J. GERTNER. J. Am. M. Ass. 9 3, 11, 11.

Experimental researches on the physiology of the hypophysis. SCHLÖSSER. Monatsschr. f. Geburtsh. u. Gynäk. 9 3, 11, 11.

Hypophyseal adenoma (basophilic adenoma of the hypophysis). B. N. and WASSER. Wien. klin. Wochenschr. 9 3, 11, No. 30.

Fixation of the hypophysis and its adhesion, with retention of their stability. THOMAS. Deutsche Zeitsch. f. Nervenh. u. Leibeskr. 9 3, 11, 11.

A new way of attacking the hypophysis. W. H. NOWINSKY. Zentralbl. f. Chir. 9 3, 11, 11. [1906]

The intracranial path of access for the extirpation of tumors of the hypophysis. RUTZ. Deutsche med. Wochenschr. 9 3, 11, 11.

Neck

A study of the carotid gland. J. L. SCHWARTZ. Zentralbl. f. Chir. 9 3, 11, 87.

Treatment of scrofulous lymphatic glands of the neck. T. von METZGER. Berl. Klin. 9 3, 11, 11. [1906]

Surgery of the neck as unilateral reaction of the internal jugular vein and of the pneumogastric nerve branches. GUTTAL. Rev. de chir. Par. 9 3, 11, 11.

The accessory thyroid glands. W. G. MACCALLISTER. Ergebn. d. Med. Kinderh. 9 3, 11, 11.

Effect of thyroid gland upon blood formation; contribution to the physiology of the thyroid gland. G. MONTAUDO. Arch. f. exp. Physiol. 9 3, 11, 11. [1906]

Sarcinomas carcinomas, particularly of the thyroid gland. STROGOMY. Zeitsch. f. Krebsforsch. Berl. 9 3, 11, No.

Adenocarcinoma of the thyroid gland. G. SOLANO. Clin. chir. 9 3, 11, 11.

Epitheliocarcinoma of the thyroid body. RASCH and RIO. Arch. de méd. exper. et d'anat. path. Par. 9 3, 11, No. 4.

Parathyroid tumor—cystic adenoma of thyroid. J. B. MURPHY. Surg. Clin. J. B. Murphy, 9 3, 11, No. 1.

Echinococcus cyst of the thyroid. G. CATTI. Clin. chir. 9 3, 11, 7, 2.

Syphilis in the thyroid gland. L. J. KRATZ. Virchow's Arch. f. path. Anat. etc., Berl. 9 3, 11, 11.

Tuberculosis of the thyroid gland. S. POLLAK. Berl. Klin. u. Tuberkul. 9 3, 11, 11.

Changes in the thyroid gland in hereditary epiph. BERCH. Russk. V. 9 3, 11, 11.

The combination of thyroids and nephroses. F. JAKO. Deutsche Zeitsch. f. Nervenh. u. Leibeskr. 9 3, 11, 11.

The effect of thyrosectomy on thyrotoxicosis. KROCK. Deutsche Zeitsch. f. Nervenh. u. Leibeskr. 9 3, 11, 11.

Experimental and clinical researches on the action of the blood (or total and partial removal of the thyroid gland). RICHARDS. Deutsche med. Wochenschr. 1913, 11, No. 30.

Surgery of the thyroid observations on 64 thyroid operations. C. H. M. V. J. Am. M. Ass. 9 3, 11, 11. [1906]

Injection of boiling water in the treatment of hyperthyroidism. I. M. PORTER. J. Am. M. Ass. 9 3, 11, 11. [1906]

Hyperthyroidism, its medical and surgical treatment. F. B. MARSHALL. J. Mich. St. M. Soc. 9 3, 11, 11.

T. cases of hemithyroidectomy for true compound goiter of tuberculous origin. P. DUBOIS. Lyon med. 9 3, 11, 11. [1906]

Lymphatic goiter. S. J. DUBOIS. N. Y. M. J. 9 3, 11, 11.

Basedow's disease. H. LUTHER. Handb. d. Neurol. 9 3, 11, 11. [1906]

Acute Basedow's disease. R. von FRANK. Zentralbl. f. inn. Med. 9 3, 11, 11.

Theoretical and experimental contributions to new theory of Basedow's disease. J. MANNING. Berl. klin. Wochenschr. 9 3, 11, 11.

Diagnostic and therapeutic notes on Basedow's disease. HALLERSTEIN. Therap. d. Gegenwart, 9 3, 11, 11.

Lesions of the thyroid body in Basedow's disease. ROCHER and CLUNY. Rev. med. Par. 9 3, 11, 11.

The oculo-cardiac reflex in Basedow's syndrome. SAUTON. Bull. méd. Par. 9 3, 11, 11.

Basedow's syndrome and diabetes. SAUTON and GUTTA. Bull. méd. Par. 9 3, 11, 11.

Late post-thyroid suppurative thyroiditis associated with secondary Basedow's disease. GALL. Deutsche med. Wochenschr. 9 3, 11, 11.

Thyroid crisis of nervous, vaso-motor Basedow's disease. ALGERIA. Rev. med. Par. 9 3, 11, 11.

The structure of congenital goiter. KRAUS. Virchow's Arch. f. path. Anat. etc., Berl. 9 3, 11, 11.

The surgical aspects of goiter. U. MANN. N. Orl. M. & S. J. 9 3, 11, 11.

SURGERY OF THE CHEST

Chest Wall and Breast

- Cancer of the breast. J. H. E. ABE. *Practitioner* Lond. 9 3, xii, 7. [503]
- Melanotic cancer of the breast in man. GRIMMOND. *Sed med.* Marseille 19 3, xi, 4, No. 96.
- Metastatic cancer and secondary osteoplastic surgery in case of cancer of the breast in human patient. AUBOURN and LEROUX. *Echo méd du nord*, Lille 9 3, xvii, N. 96.
- The prognosis of cystadenoma of the breasts. RITTER. *Monatschr f Geburtsh. Gynak* 9 3, xxv, 679. [503]
- Cystic mammary tumors. H. URCOTT. *Practitioner* Lond. 9 3, xii, 4.
- Leiomyoma of the breast. L. STROM. *Am J Obst. N Y* 9 3, lviii, 53.
- Treatment of fractures of the clavicle. KÄRNER. *München med. Wchnschr* 9 3, lx, No. 30.
- Bilateral sterno-clavicular dislocation of congenital origin. GORDON. *Rev orthop* Par 9 3, xv, 304. [503]
- Surgery of the sternum. H. HARTTOW. *Deutsche Chir. f. Chir* 9 3, xxviii, 5 5.
- A rare malformation of the thorax. P. KERN. *München med. Wchnschr* 9 3, lx, 435.
- The development of the thorax from birth to the completion of its growth and its relation to rickets. ZELLMER. *Jahrb. f. Kinderh.* 9 3, lxviii, No. 1.
- Thyroiditis and hydrothorax. E. SCHNEIDMANN. *Klin. therap. Wchnschr* 9 3, xxi, 68. [503]
- The indications for artificial pneumothorax in pulmonary tuberculosis. H. SCHUB and S. PLASCHKE. *Wien. klin. Wchnschr* 9 3, xxvi, 96. [504]
- On the possibility of achieving by partial pneumothorax the advantages of complete pneumothorax in the treatment of pulmonary tuberculosis. W. P. MURRAY. *Lancet*, Lond. 9 3, clxxxv, 8.
- The frequency of the development of pleuro-pulmonary fistula during artificial pneumothorax and the therapeutic indications which result therefrom. BARD. *Semin. méd. Par* 9 3, xxxiii, N. 79.
- Technique of artificial pneumothorax. KAUFMAN. *Internat. Zentralbl. f. d. ges. Tuberkul. Forsch* 9 3, vii, 330. [504]
- Efforts toward the cure of pulmonary tuberculosis by surgical intervention. AL. ABE. *Rev. de med. y cir. pract.* Madrid, 9 3, xxxvii, No. 37.
- Rational pneumotomy in thoracic surgery. G. LEROUX. *Deutsche Ztschr. f. Chir* 9 3, cxviii, 495.
- Aspiration after thoracotomy in purulent pleurisy. DELANT. *J. d. praticiens*, Par. 9 3, xxvii, No. 39.
- Pneumothorax. JENSEN. *München med. Wchnschr* 1913, lx, No. 39.
- Extrapleural pneumothorax with immediate plugging (Mombierung) in pulmonary tuberculosis. G. HAIN. *München med. Wchnschr* 9 3, lx, 387.
- Two cases of traumatic hemothorax. LEONARD and GUYER. *Lyon méd.* 9 3, cxi, No. 37.
- Final result of an intra-thoracic subpleural graft in case of an intrapleural suppurative cavity on the right side. T. TURPIN. *Bull. et mem. Soc. de chir. de Par* 9 3, xxxix, 740. [505]
- The transpleural path of abscess. LAFITTE. *Arch. gén. de chir.* Par. 9 3, vii, No. 6.
- Primary lympho-endothelioma of the pleura. TRADIA. *Rev. méd. de Chile*, 9 3, xii, No.

- A case of tumor of the mediastinum. LAUCARELLI. *Chir. chir.* 9 3, xii, No. 6.
- The thymus. BACH. *Deutsche med. Wchnschr* 9 3, xxxix, No. 30.
- Death caused by persistent thymus in small children. PRINCE-ALBERT DE. *Frankl. Ztschr. f. Path.*, Wiesb., 9 3, xlii, No.
- The chemical composition of the infantile thymus. L. MICHELSON. *Arch. f. Kinderh.* 9 3, lx, Festacht. f. Adolf Dargatzsky 491.
- Is it possible to obtain successful demonstration of persistent or hyperplastic thymus by means of Abderhalden ferment reaction? K. LE. *München med. Wchnschr* 9 3, lx, No. 30.
- New growth of the thymus in an adult associated with syndrome of transverse myelitis caused by vertebral metastases. ROCCAVILLA. *Gazz. d. osp. d. Clin.*, Milano, 9 3, xxvii, No. 57.

Trachea and Lungs

- Wax paraffin casts of the trachea, taken from the organs in situ. OPPENHEIM. *Arch. f. Laryngol. u. Rhinol.* 9 3, xxxv, N. 3.
- Artificial breathing continued successfully for 5 days. S. F. DERJAGINSKY. *Verhandl. d. XII Kong. Russ. Chir.* 9 3, xii, 408. [505]
- Cyrtomata of the upper respiratory passages. PRINCE. *Arch. f. Laryngol. u. Rhinol.* 9 3, xxxv, No. 3.
- Diagnosis and treatment of lodgment of foreign bodies in the respiratory passages. GUNDEL. *Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx*, Par. 9 3, xxxiv, N. 6.
- A voluminous foreign body in the respiratory passages, extraction by tracheotomy; recovery. CARILLON and STREIT. *Polichin, Roma*, 9 3, xi, No. 7.
- Diagnosis of tracheo-bronchial foreign bodies. GUNDEL. *J. d. praticiens*, Par. 9 3, xxxvii, No. 37.
- Foreign bodies in trachea and bronchial tubes. F. G. HODGSON. *J. Rec. Med.* 9 3, lx, 46.
- The extraction of a foreign body from the bronchi. SAVERI. *Monatschr. f. Ohrenh. u. Laryngol.-Rhinol.* 9 3, 776.
- Two cases of death in bronchoscopic extraction of foreign bodies. V. HRVATSKO. *Ztschr. f. Ohrenh. u. f. d. Kinnh.* d. Luftr. 9 3, lxviii, 30.
- Foreign body in right bronchus. lower bronchoscopy: successful extraction. G. HUTCHINSON. *Med. Rec.*, 9 3, lxviii.
- A needle in the left bronchus of a girl 7 months old. GUNDEL and GORDON. *Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx*, Par. 9 3, xxxix, No. 6.
- Extraction of foreign bodies from the lung in children. SCHUB. *München med. Wchnschr* 9 3, lx, No. 7.
- Spontaneous healing of trauma of the lung. THORPE. *Arch. f. klin. Chir.* 19 3, cl, No. 4.
- A case of cancer of the lung. GALLOW. *Terrap. Obes. ritid. Odessa*, 9 3, No.
- Metaplasia of the connective tissue of the lung during primary epithelioma. ANGIARD, CHARRIN and LEROUX. *Province méd.* Par. 9 3, xxvii, No. 28.
- Invasion of the lungs by tuberculosis, as seen by the otopneumatist. G. H. STOVINE. *Denver M. Times*, 9 3, xxxii, 1.

Pulmonary echinococci and critical notes on the diagnosis of thoracic echinococci. L. K. DOL. Dissertation, Koenigsberg, 93.

Pulmonary embolism—cause of post-operative death. G. PATRIS. *Médecine Clin. Chir.* 93, 1, 162-166 [1903]. Abstracts in *Annals of the Surg.* K. KILIAN. Dissertation, Erlangen, 93.

Heart and Vascular System

Wounds of the heart. LEONARD. *Polish Rev.* 93, 22, 1-7.

T. Cases of sutured wounds of the heart see death one recovery. G. & Bull. *Med. P.* 93, 22, 1-14, No. 55.

Wound of the pericardium and heart. G. C. H. ALLEN. *N. Y. M. J.* 93, 22, 1-14, No. 55.

Pericarditis in certain affections of the heart or pericardium themselves. D. W. A. A. b. *Prus. de chir. Par.* 22, 1-14, No. 55.

The treatment of obstructive pericarditis by pericardiotomy (about 18 cases). H. J. C. Bull. *et. Rev.* 93, 22, 1-14, No. 55.

Should we incise the pericardium? D. W. A. A. b. *Prus. de chir. Par.* 22, 1-14, No. 55.

Arterio-venous anastomosis in the pulmonary artery. A. report of three cases. H. N. J. Bull. *et. Rev.* 93, 22, 1-14, No. 55.

The pathology of asphyxial aneurysms in relation to the formation of aneurysms. M. C. W. B. Bull. *et. Rev.* 93, 22, 1-14, No. 55.

Pharynx and Oesophagus

The value of the method of external incision for the removal of foreign bodies from the oesophagus. W. A. D. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

Oesophagotomy. Laryngoscopy and bronchoscopy as aids in the diagnosis and removal of foreign bodies from the oesophagus. W. A. D. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

Notes on the treatment of oesophagotomy, bronchoscopy and laryngoscopy. R. H. J. *Ann. Surg.* 93, 22, 1-14, No. 55.

The removal of foreign bodies from the upper end of the oesophagus. R. H. J. *Ann. Surg.* 93, 22, 1-14, No. 55.

Diagnosis and treatment of cicatricial stenosis of the oesophagus. G. R. Arch. *Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

A diverticulum formed just below the cardiac orifice of the oesophagus. H. J. *Arch. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

A case of very marked stenosis of the oesophagus had no complete closure in the lower portion following resection of the lung. K. M. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

Congenital stenosis of the oesophagus. G. R. *Arch. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Types of occlusion of the oesophagus in early life. T. M. *Ann. J. Dis. Children.* 93, 22, 1-14, No. 55.

Congenital occlusions of the oesophagus and lower bowels. G. H. *Edinburgh Med. J.* 93, 22, 1-14, No. 55.

The present status of oesophagotomy in cases of the oesophagus. R. L. *Ann. Surg.* 93, 22, 1-14, No. 55.

The radical operation in carcinoma of the oesophagus. Dr. K. *Zentralbl. f. Chir.* 93, 22, 1-14, No. 55.

Report on the first successful resection of the thoracic portion of oesophagus for carcinoma. T. M. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

A case of oesophagitis diagnosed following poisoning by acids and alkalis. R. L. *Ann. Surg.* 93, 22, 1-14, No. 55.

Plastic surgery of the oesophagus. L. O. *Gazette. Verh. d. N. Kongr. Med. Chir. Moskau.* 93, 22, 1-14, No. 55.

Plastic surgery of the oesophagus. L. O. *Gazette. Verh. d. N. Kongr. Med. Chir. Moskau.* 93, 22, 1-14, No. 55.

Miscellaneous

Infection of the thoracic cavity. B. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

Penetrating thoraco-abdominal wounds. G. R. *Arch. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

The rapidly which continuous use of the thoracic and contained glands follows infection of the peritoneal cavity. C. C. T. *Lancet, Lond.* 93, 22, 1-14, No. 55.

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

A case of omphalocele of the wall of the peritoneal wound. B. *Deutsch. med. Wchnschr.* 93, 22, 1-14, No. 55.

Penetrating wounds of the abdomen. I. *Ann. Rev. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

The causes of ulcers of the abdomen. P. *Ann. Rev. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Surgical treatment of subcutaneous leishmaniasis of the abdomen. G. *Ann. Rev. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Dreadful wound of rectus muscle. J. B. *Ann. Surg.* 93, 22, 1-14, No. 55.

Report of an autopsy on case in which both of the rectus abdominis were cut transversely. S. R. *Ann. Surg.* 93, 22, 1-14, No. 55.

Laparoscopy and thoracoscopy. J. *Ann. Surg.* 93, 22, 1-14, No. 55.

The value of the introduction of oxygen or air into the abdominal cavity for purposes of experimental and diag-

nostic roentgenology. W. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Life in the abdomen following laparotomy. C. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Retropertitoneal abscess with recovery. Case report. T. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Retropertitoneal cysts of Wolden origin. W. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

The descending mesocolon. J. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Normal peritoneal fluid. E. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Multiple indurated cysts of the peritoneum. D. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Biliary peritonitis. V. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Rehabilitation of peritonitis. K. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Carphorated oil in peritonitis and abscesses of the pouch of Douglas. B. *Ann. Internat. de laryngol., d'otol. et de rhinol. Par.* 93, 22, 1-14, No. 55.

Tubercular peritonitis. F HARTZ. *Ergebn. d. Chir. u. Orthop.*, 9 3 vi, 370. [507]

The employment of tincture of iodine in dry peritoneal tuberculosis. S. STROCKER. *Schweiz. Rundschau f. Med.*, 9 3 xlii 745. [507]

The operative treatment of peritoneal and genital tuberculosis. O. SCHMIDT. *Zschr. f. Geburtsh. Gynäk.*, 9 3 lxxix 404.

Tubercular peritonitis and its operative treatment. A. G. ROMANOFF. Dissertation, Moscow, 9 3. [507]
Subphrenic abscess caused by an ulcer. L. HÖRNER and Z. TARDOS. *Budapesti kir. Orvosi Értesítője*, 9 3 li, 376.

Diaphragmatic eventration (relaxation of the dia phragm). P. KRAUSE. *Deutsche Ztschr. f. Nervenheilk.*, 9 3 xlix, Festschr. f. von Strumpell 123.

Diaphragmatic hernia in phthisical subject. MIN-CHON. *Ugred. f. Lager Kjøbenhavn*, 9 3 lxx No. 5.

Accidents and complications of hernia. A. V. KIRBY. *Am. J. Surg.*, 9 3 xxvii, 245.

Inguinal hernia of fatty tissues. Intermittent crural proportional hernia. V. ARVAY. *Echo méd. du nord, Lille*, 9 3 xvii, No.

Constructed hernia of the epiploon. JABOU. *Progrès méd. Par.*, 9 3 li, N. 20.

Multiple hernia obstruere schenue ad femoral, in an adult. H. RICHARDSON. *Aust. also M. Gaz.*, 9 3 xxvii 7.

Two very voluminous serotal hernia. (Schwartz). *Deutsche med. Wchnsch.*, 9 3 lxxix 207.

Hernia-urethral structure report of 1 cases. J. M. WHITE. *Internat. J. Surg.*, 9 3 xvi, 5.

Retropubic incarceration—hernia. in W. LOOSE. *Fortschr. Surg. G. u. Obst.*, 9 3, xvii, 97. [508]

A new case of hernia subcutanea cruralis. G. PAT. *Gynäk. Rundsch.*, 9 3 vii, 8. [508]

A simple aid in the reduction of hernia in burlings. A. V. ARVAY. *München med. Wchnsch.*, 9 3 li, 454.

Prophylaxis against hernia and prostrations following laparotomies. G. A. WASSILCHUK and A. V. LEVINSKY. *Arch. d. klin. Chir.*, 9 3 i, 896.

The appendix and appendicitis in the hernary % and appendectomy in radical operations for inguinal and crural hernia. J. NORDSTR. *Hygien. Stockholm*, 9 3, lxxv 379.

Permanent operative results of crural hernia. H. ROSENFELD. *Beitr. klin. Chir.*, 9 3 lxxvi 563.

A rational deep suture for Bassini operation. V. SANTUCCI. *Chin. chir.*, 9 3, xxi 779. [509]

A case of intra-hernary torsion of the great omentum. PATR. and S. WY. *Lyons chir.*, 9 3 x, No.

The significance of the omentum in physiological and pathological conditions. W. GUZIK. *vi. Beitr. klin. Chir.*, 9 3, lxxvii 587. [509]

The pathology of the great omentum. GORDENHART. *Zentralbl. f. Chir.*, 9 3 xl, 80.

Circumscribed bulbaroma (cyst formation) in the pelvis, originating from the greater omentum. SCHNEIDER. *Beitr. klin. Wchnsch.*, 9 3 i, 908. [509]

An uncommon case of lymphoedema of the mesenteric glands. CURRY. *R. exp. Roma*, 9 3 iii, No. 3.

An interesting case of tumor of the mesentery. CAMERON and DORRINGTON. *Rev. de med. y cir. de la Habana*, 9 3, xxvi, No. 3.

Mesenteric cysts, with report of a case of surgicous cysts of the mesentery of the small intestine. C. H. LEAVER. *J. Am. M. Ass.*, 9 3 li, 97. [509]

Mesenteric and retroperitoneal blood cysts. F. CARROUSEL. *Chin. chir.*, 9 3 xli, 715. [510]

A case of mesenteric thrombosis. H. H. RAYMOND. *Med. Chronicle*, 9 3 liii, 30.

Gastro-Intestinal Tract

Radiography in case of hairball in the stomach. C. T. HOLLAND. *Arch. Röntg. Ray*, 9 3, xvii, 46.

Some radiographs of obscure stomach and intestinal cases. S. TOCHAI. *N. Y. M. J.*, 9 3, xviii, 1.

X-ray examination of woman in whom the stomach and two vagus nerves had been resected. M. COVY. *Berl. klin. Wchnsch.*, 9 3 i, 393.

The effect of meals taken subsequent to the test-meal in roentgenological determination of the motility of the stomach. M. L. CHOW. *Deutsche med. Wchnsch.*, 9 3 xxi, 39.

Movements of the stomach and duodenum studied by the perfusion method. P. CANNON. *Compt. rend. Soc. de Biol.*, 9 3 lxxvi 265. [510]

Covered perforations of the stomach. HUTH. *J. méd. de Brux.*, 9 3 xviii, No. 7.

Diagnosis and surgical treatment of gastric and duodenal ulcers. SHERLOCK. *Berl. klin. Wchnsch.*, 10 3, i, No. 28.

The X-ray method in diagnosis of gastric and duodenal ulcers. F. W. WHITE and A. W. GEORGE. *Boston M. & S. J.*, 9 3, cliii, 57. [511]

The X-ray in the diagnosis of gastric ulcer and its sequelae. R. W. MILLS and R. D. CARMAN. *Surg. Gynec. & Obst.*, 9 3, xvii, [511]

X-ray diagnosis of ulcers of the stomach. DOMINGUEZ. *Rev. de med. y cir. de la Habana*, 9 3, xviii, No.

Chronic gastric ulcer in the X-ray picture of the air-inflated stomach. W. RÖHRER. *Mitt. d. Grenzgeb. d. Med. u. Chir.*, 9 3, xvii, 307. [512]

Attempted X-ray treatment of ulcers of the stomach. KNORR. *Fortschr. a. d. Geb. d. Röntgenstr.*, Hamburg, 9 3, xi, No. 3.

Heredity of round ulcer of the stomach. D. OWEN. *Arch. d. mal. de l'appareil digest. et utr. Par.*, 9 3 vii, No. 7.

Large ulcer of the stomach in a tuberculous patient. MARTIN and RABOU. *Laborat. Marseille méd.*, 9 3 i, No. 4.

A preliminary note on the experimental production of gastric ulcers by the intravenous injection of clumped colon bacilli. E. C. STEINBAUM. *Boston M. & S. J.*, 9 3, cliii 8. [512]

Perforation of an ulcer of the stomach under ordinary strain not basis for claim for indemnity. IRVING. *Med. Klin. Berl.*, 9 3, li, No. 27.

Posterior gastrojejunostomy in acute perforative ulcer of the stomach and duodenum. J. B. DEVERE. *J. Am. M. Ass.*, 9 3, lii, 75. [512]

The relations of chronic gastritis and its sequelae and of chronic gastric ulcer to the development of gastric carcinoma. G. E. KOSGROVE. *Beitr. z. klin. Chir.*, 9 3, lxxv 455.

Carcinoma of the stomach. C. GRAYSON. *Med. Herald*, 9 3, xxvii, 7.

Cancer of the stomach. T. URRILL. *Boston M. & S. J.*, 9 3, cliii, 44. [513]

The early diagnosis of gastric carcinoma by aid of Röntgen ray. W. F. HILZ. *Wb. M. J.*, 9 3, xli 46.

Negative roentgenological diagnosis in clinically diagnosed gastric carcinoma. G. H. STOLTZ. *Med. Rec.*, 9 3 lxxvii 66.

The peptid-splitting criterion of the carcinomatous stomach and its value in diagnosis. A. G. BAYNE. *Med. Chron.*, Berl. 9 3, xvi, 6.

Perforation in cancer of the stomach. JAHNKE. *Arch. d. mal. de l'appareil digest. et utr. Par.*, 9 3, vii, No. 7.

Neoplasms of the stomach and of the pancreas. MARTIN and RABOU. *Labor. Marseille méd.*, 9 3 i, No. 4.

Fibromatosis of the stomach and its relationship to ulcer. A. THOMPSON and J. M. GRAHAM. *Edinb. M. J.* 9, 3, 21, 7. [512]

A voluminous leiomyoma of the gastric wall. G. MOCICA. *Clin. chir.* 19, 3, xvi, 211.

Gastro-colic resection, typical operation in certain forms of gastric carcinoma. G. FRIEDMAN. *Zentralbl. f. Chir.*, 9, 3, 21, 97.

Extensive resection of the stomach. MARIO. *Clin. chir. Milano*, 9, 3, xii, N. 6.

The relation of gastrostomy to inoperable carcinomas of the esophagus, with description of new method of performing gastrostomy. H. H. JAKOW. *J. Am. M. Ass.*, 9, 3, li, 93. [514]

The technique of the suture in gastrostomy after the method of Witzel. M. M. KAJUKOW. *Arch. f. klin. Chir.* 9, 3, 4, 813.

A procedure of gastric atrophic surgery by means of transplantation of loop of the small intestine; presentation of specimen from experiments performed on dog. CHASTNET DE GÉRY. *Gaz. méd. de Nantes*, 913, xxxi, No. 28.

The use of the rubber dam in gastro- and entero-enterostomy. C. E. RUTIN. *Med. Council*, 9, 3, xvii, 249.

Stenosis of the pylorus in infancy. C. L. SCUDGEE. *Illness M. J.* 9, 3, xiv.

Congenital hypertrophic pyloric stenosis. R. E. McKENZIE. *Canad. M. Ass. J.*, 9, 3, 21, 566.

Pyloropexy. A. HORNKAMP. *Zentralbl. f. Chir.* 9, 3, 21, 69.

How is exclusion of the pylorus and the duodenum to be obtained? LEROUX. *Lyon chir.* 9, 3, x, No.

Indications for the duodenal method of alimentation. ECKHART. *Deutsche med. Wchnsch.* 9, 3, xxxi, No. 29.

Permanent alimentation through duodenal sound. LAUBER. *Berl. klin. Wchnsch.* 9, 3, 1, No. 30.

Constrictions of the duodenum. F. VERTZ. *Arch. prov. de chir. Par.* 9, 3, xii, No. 6.

The positive diagnosis of duodenal ulcer by means of the Röntgen ray. A. W. GROSS. *Am. Quart. Röntgenol.* 9, 3, iv, 87. [514]

The diagnosis and prognosis of duodenal ulcer. J. T. PRITCHER. *Med. Rec.* 9, 3, lxxvii, 50.

My duodenal ulcer. K. COMBER. *Med. Press & Circ.* 9, 3, xxvi, 58.

X-ray diagnosis of stenosis of the small intestine. H. AMMANN. *Deutsche Ztsch. f. Nervenh.*, 913, xiv, Festschr. f. von Strümpell.

Traumatic constrictions of the intestines with the abdominal walls are intact. P. F. KOLTSCHER. *Chirurgie, St. Petersburg*, 9, 3, xxxii, 672.

Intestinal obstruction. W. E. DICKER. *J. Okla. St. M. Ass.* 9, 3, vi, 68.

Intestinal obstruction due to large gall-stone in ileum. J. B. MURPHY. *Burg. Clin. J. B. Murphy* 9, 3, li, No. 3.

Intestinal obstruction in the rabbit. BOWMAN and JONES. *J. Exp. Med.*, 9, 3, xvii, 5. [514]

Obstruction of small intestine due to dilation of stomach to peritonum in lesser peritoneal cavity division of adhesion, cure case report. S. C. KASOW. *Am. J. Surg.*, 9, 3, xxvii, 272.

A rare case of intestinal occlusion. KIRSCHENSTEIN. *Wien. med. Wchnsch.* 19, 3, liii, No. 20.

A case of stenosis caused by retroversion of the large intestine. T. KORVONEN. *Hosp. Tid., Kjöbenhavn*, 9, 3, lvi, 811.

Congenital obliteration of the small intestine. H. von TUBAU. *Hosp. Tid., Kjöbenhavn*, 19, 3, lvi, 87.

Ischemia of the intestine. A. P. SCHERWINSKY. *Chirurgie, St. Petersburg*, 9, 3, xxxii, 681.

Acute and chronic invaginations. S. R. DE GROOT. *Geneesk. Bladen*, klin. en labor. 9, 3, xii.

Ascariasis as the cause of intestinal invagination. HONNIGER. *Zentralbl. f. Chir.* 9, 3, 21, 78.

Surgical affections caused by ascariasis. SCHLOSSER. *Zentralbl. f. Chir.*, 9, 3, 21, 78.

Volvulus as cause of ileocolic peritonitis. L. KIRCHENSTEIN. *Berl. klin. Wchnsch.* 913, No. 679, 680.

Ascaric enterostomy. A. WILST. *Zentralbl. f. Chir.*, 9, 3, 21, 70.

Notes on case of incarceration of the cecum and ascending colon in lesser sac of peritonum; operation; recovery. I. BACK. *Lancet Lond.*, 9, 3, cxcvii, 17.

Infectious granuloma of caecal colon; resection of cecum and anastomosis of ileum to ascending colon. J. B. MURPHY. *Burg. Clin. J. B. Murphy* 9, 3, li, No. 3.

Resection of the ileo-caecal portion of the intestine on account of invagination caused by submucous lipoma. AXELDIT. *Berl. klin. Wchnsch.* 9, 3, lxxvii, No. 1.

The black (pigmented) appendix. W. BATTLE. *Lancet Lond.*, 9, 3, cxcvii, 35.

The pathology and diagnosis of appendicitis. F. H. SARRIS. *Va. M. Semi-Month.*, 9, 3, xvii, 86.

Is appendicitis ever catarrhal? F. A. PATTER. *Med. Rec.* 9, 3, lxxvii, 39.

Symptoms and medical treatment of appendicitis. A. B. GRIFFIN. *Va. M. Semi-Month.*, 9, 3, xvii, 94.

Diagnosis of peritonitis of the appendix. STREIB. *Deutsche med. Wchnsch.* 9, 3, xxxii, No. 7.

Errors of diagnosis in appendicitis. DR. QUINCY. *Rev. méd. Suisse romande*, 9, 3, xxxii, 213. [515]

Diagnosis of appendicitis. DRYAN. *Greece med. Athens*, 9, 3, xv, Nos. 11 and 2.

Appendicitis in children. J. G. SAKKIDIS. *Pediatrics*, 9, 3, xxv, 411.

Two cases simulating appendicitis. E. S. JACOBSON. *Australas. M. Gaz.*, 9, 3, xxxiv, 4.

Ileus and appendicitis. W. WITKOWSKI. *München. med. Wchnsch.* 9, 3, li, 644.

Hydro-appendicitis. DROGOTZ. *Rev. de gynéc. et de chir. abdom.* 9, 3, 22, 243. [515]

Cases of appendicitis, cholelithiasis and pericholecystitis showing the clinical picture of ulcer of the stomach or duodenum. J. PÉTER. *Budapesti Kir. Orvosi Értesítője*, 913, li, 377.

The co-relation of appendicitis, mucous colitis and membranous pericolicitis. A. BICKELMAN. *J. Lancet*, 1913, xxxii, 402.

A case of formation of pseudo-aryzans following appendicitis. PACTER. *Wien. klin. Rundschau*, 913, xxvii, Nos. 7 and 25.

Pseudo-syndrome of the appendix. COCHET. *Bull. méd. de l'Algérie Alger*, 9, 3, xxv, No. 11.

Gelatinous cysts of the appendix. MIZUKI and D. UENO. *Tohoku med.* 19, 3, xv, No. 3.

Congenital absence of the appendix and acute appendicular syndrome. BIFARRO and BLANCH. *Province med. Par.*, 913, xvi, No. 20.

Gastric hyperpexy of appendicular origin. S. SOUZA. *Rev. op.*, 1913, li, No. 2. [515]

Responsibility of the physician in the management of appendicitis. E. H. WOODMAN. *Va. M. Semi-Month.*, 913, xvii, 91.

The treatment of appendicitis. DORRILEY. *Arch. med. chir. de Normandie, Le Havre*, 9, 3, lv, 87.

Surgical treatment of appendicitis. S. S. GALT. *V. M. Semi-Month.*, 9, 3, xvii, 95.

Early operation in appendicitis. B. G. SCHAMSKY. *Verhandl. d. XII. Kong. Russ. Chir. Moskau*, 913, xii, 5.

- Operation in the intermediate period for appendicitis. *Bull. trav. chir. arch. Volkmann & Co.* St. Petersburg 93, xix, No. 3.
- Treatment of grave enteritis by appendectomy. *ROUX and BARCKWOLD.* *Marseille méd.* 1931, N. 3.
- Grape seeds in pelvic abscess. *C. H. C. KELLER.* *South. M. J.* 93, 4, 330. [516]
- Etiology and significance of pericolic membranes. *D. CHERNER.* *J. Am. M. Ass.* 93, vi, 243. [516]
- Pericolic. *G. J. BARADIAN.* *Verhandl. d. XII. Kong. Russ. Chir. Moskau.* 93, vi, 45.
- Intestinal stasis. *M. B. SCHLENGER.* *Boston M. & S. J.* 1931, class 4.
- Chronic intestinal stasis. *W. B. BAIRDING.* *J. Maine M. Ass.* 93, 4, 343.
- Intestinal stasis (from the medical standpoint). *A. BARADIAN.* *Am. J. Gastro-Enterol.* 93, vi.
- Intestinal stasis caused by band of adhesions. *J. B. MURPHY.* *Surg. Clin. J. B. Murphy.* 93, N. 3.
- The use of the Roentgen rays in diagnosis of intestinal stasis. *G. E. PRYOR.* *Am. J. Gastro-Enterol.* 93, vi, 8.
- Intestinal angulations and kinks associated with stasis. *WHEELER.* *Med. Press & Circ.* 93, xiv, 8.
- The relations of adhesions and intestinal angulations resulting from enteropneumosis in chronic constipation. *R. C. KIRBY.* *N. Y. M. J.* 93, xxviii.
- Ceco-jejunostomy in chronic intestinal stasis. *F. C. YEN.* *Am. J. Gastro-Enterol.* 93, vi.
- The surgical treatment of chronic intestinal stasis. *W. S. BARNARD.* *Am. J. Gastro-Enterol.* 93, vi.
- Radiographic colon diagnosis. *R. UPHAM.* *Am. J. Roentgen.* 1931, xxviii, 189.
- Volulus of the large intestine. *BIRNBAUM.* *Beitr. z. Allg. Chir.* 93, xxxv, No. 1.
- Hirschsprung's disease or congenital dilatation of the colon in boy of three years, resection of colon. *recovery.* *H. T. MACLEOD.* *Canad. J. M. & S.* 93, xxxv, 7.
- Congenital megacolon. *GARCIA.* *Argentine med., Buenos Aires.* 93, vi, No. 24.
- A case of traumatic rupture of the bowel. *C. H. MCKINNEY.* *Iowa M. J.* 93, xx, 30.
- Cancer of the colon. *S. WHITE.* *Brit. M. J.* 93, ii, 1516.
- Diffuse adenomatous intestinal polyposis. *G. SCAGLIONE.* *Deutsche med. Wochenschr.* 93, xxxix, 303.
- Actions of X-rays on polyadenomas of the intestine. *AGUIRRE and BEAUFAY.* *Bull. et mem. Soc. méd. d. hôp. de Par.* 93, No. 1. [516]
- X-ray diagnosis of colitis ulcerosa. *R. KROENKE.* *Fortschr. d. Geb. d. Roentgenstr.* 93, vi, 31. [516]
- A clinical study of severe hemorrhagic or dysenteriform colitis in the adult. *MAITRE.* *Gaz. d. hôp. Par.* 93, xxvii, N. 40.
- Differential diagnosis of dysenteriform and hemorrhagic colitis in the adult: the possible varieties of surgical intervention in these diseases. *MAITRE.* *Gaz. d. hôp. Par.* 93, xxvii, No. 81.
- Marked colitis and operative indications. *MAITRE.* *J. d. prat. chir., Par.* 1931, xxv, N. 30.
- The treatment of mucous membranes enterocolitis. *Terap. Obstand., Odessa.* 93, No. 3.
- Surgical treatment of severe chronic colitis and of some severe forms of constipation. *MAITRE.* *Gaz. d. hôp., Par.* 1931, xxvii, No. 85.
- The value of primary resection of the large intestine. *P. D. SELOVSKY.* *Verhandl. d. XII. Kong. Russ. Chir. Moskau.* 93, vi, 144.
- Remarks on the surgery of the large intestine. *R. MORTIMER.* *Lancet, Lond.* 93, clxxxv.
- Surgery of the large intestine, with the resection of the rectum. *FRANKLIN.* *Arch. f. klin. Chir.* 1931, cl, No. 4.
- The bowel doorknocker, with description of technique of operation for short-circuiting bowel. *R. T. M. RAIN.* *Med. Rec.* 93, lxxvii, 3.
- Non-neoplastic stenoses of the sigmoid colon and their relations to megacolon. *CADÉ, ROYER and MARTIN.* *Lyon chir.* 93, x, No. 1.
- Radical operation in two stages for stricture producing carcinoma of the sigmoid colon. *MAHLEIN.* *Zentralbl. f. Chir.* 93, xl, No. 30.
- Deceit of the sigmoid flexure. *J. M. LITVACHENKO.* *Chirurgia, St. Petersburg.* 93, xxxii, 648.
- Ileo-jejunostomy: its indications and future. *L. HALL.* *Western M. News.* 93, 35.
- Cure of prolapse of the rectum by operation after the method of Hoffmann. *J. VROVANO.* *Budapest Orvosi Ujsag.* 1931, x, 22.
- The treatment of prolapse of the rectum in children. *F. PRILATSKA.* *Monatschr. f. Kinderh.* 93, xii.
- Operations in prolapse of the rectum after the method of N. polid. *A. W. THOMASOWITZ.* *Chirurgia, St. Petersburg.* 93, xxxii, 644.
- Cancer of the rectum. *G. B. KATSO.* *Clinique.* 93, xxvii, 37.
- Surgical treatment of cancer of the rectum. *DEPAE.* *ad M. YER.* *Arch. prov. de chir. Par.* 93, xii, No. 6.
- Two cases of resection of the rectum on account of cancer. *PROLIER.* *Arch. prov. de chir. Par.* 93, xii, No. 6.
- Plastic surgery of the rectum. *J. PÖTY.* *Budapest Orvosi Ujsag.* 1931, x, 379.
- Absence of the rectum, after anastomosis and perineostomy recovery. *SOKKA.* *Rev. de med. y chir. de la Habana.* 93, xvii, N. 3.
- Operative treatment of fecal fistula. *A. B. KOSVLOV.* *Chirurgia, St. Petersburg.* 1931, xxxii, 645.
- Operation and after treatment of fistula in ano. *L. MURPHY.* *Lancet, Lond.* 93, clxxxv, 72.
- A new operation for hemorrhoids. *W. M. BEACH.* *Pittsburgh M. J.* 93, 4. [516]
- The X-ray diagnosis of gastro-intestinal disease. *A. AL COLE.* *J. Indiana St. M. Ass.* 93, vi, 307.
- Radiograph as an aid to diagnosis and treatment of gastro-intestinal lesions. *H. P. COLE.* *South. M. J.* 93, vi, 7.
- Methods of X-ray examination for the study of the gastro-intestinal tract, with special consideration of the contrast substances. *KATZKE and SULLIVAN.* *Fortschr. d. Geb. d. Roentgenstr. Hamburg.* 93, vi, No. 3.
- Some rare forms of hemorrhoids in the gastro-intestinal tract. *E. S. ADLERMAN.* *Berl. klin. Wochenschr.* 93, 4, 83.
- Thrombotic enterocolitis; hemorrhagic ulcerous enteritis caused by pneumococci. *SANDRO.* *Polish. Rozn.,* 93, xx, No. 1.
- Mobility and shape of the intestines. *G. VOZ BRANIN and G. KATZKE.* *Deutsche med. Wochenschr.* 93, xlix, 304.
- A description of the enteropneumosis. *R. R. SARTER.* *Surg., Gynec. & Obst.* 93, xlvii, 71. [516]
- Some experiences in the surgical treatment of ulcers and carcinomas of the intestinal tract. *C. A. MAXARD.* *J. Mich. St. M. Soc.* 1931, xlii, 255.
- Intestinal anastomosis. *W. W. STRASSER.* *Deutsche Ztschr. f. Chir.* 93, cxliii, 705.
- Syphilitic affections of the digestive organs. *J. M. WOLFE.* *Russk. J. Kosknych i veter. bolezney St. Petersburg.* 93, xcv, 99.

Liver Pancreas and Spleen

The relations of the liver to the thyro-parathyroid apparatus. DELAUNAY J ac et coll. et Polters, 913 No. 7

Tests for hepatic function and disease under experimental conditions. WATKINS, MARSH and PRINGLE. Bull. Johns Hopkins Hosp. 9 2, xvii, 307

Radioscopic examination of the liver. J. UGLES Arch. Röntg. Ray. 9 3, xviii, 48 [514]

Transjugular drainage of the liver. NORMAN. Arch. Clin. Chir. 9 3, xi, No. 4

Subcutaneous injuries of the liver. F. A. FAYERS. Budapesti Orvosi Ujság, 9 3, xi, 53

Distribution of wounds of the liver the gall-bladder and the biliary. VALLARON and LORRENTZ. Rusk. Vrach. St. Peterb. 9 3, xi, h. 38

Primary chemo-epithelioma of the liver. B. FISCHER. Frankf. Ztschr. f. Pathol. 9 3, xii, 452. [518]

Hepatic hydropneumocyst: each developed in large abscess of the liver following dysentery: radioscopic and radiographic examinations. CLERET and B. VIE. Lyon méd. 9 3, cxi, h. 38

Some clinical considerations on the diagnosis and treatment of abscess of the liver based on 200 personal cases. VIE. Rev. méd. de Chile 9 3, xli, h. 1

Abscesses of the liver at the hospital of Hilspong. SAMRÉ. Arch. gén. de chir. Par. 9 3, No. 6

Large abscess of the liver, rapid cure by surgical treatment followed by emulsi. A. CHATYANO. Bull. et mécon. Soc. méd. d. hôp. de Pa. 9 3, No. 9, 650 [518]

Nine cases of dysentery and abscess of the liver cured by Rogers method. MONTA. Argentine med., Buenos Aires, 9 3, h. 7

Radical operation in al. solar echinococcus of the liver. Comment on the article of the same title by Prof. Lynch. N. ALVAREZ. Char. arch. Vienne, St. Peterb. 9 3, xxi, h. 9

The employment of fœtal lutea in resections of the liver. CHIRAZ. Zentralbl. f. Chir. 9 3, xi, h. 30

Resection of the liver. LEONARD. Zentralbl. f. Chir. 9 3, xi, 97

Resection of the left lobe of the liver because of cancer. Z. COLLIER. Case d. op. d. chir. Milano 9 3, xxi, No. 78

The gall-bladder and the chemistry of the stomach. MAURER. Med. Klin. Berl., 9 3, xi, No. 7

Congenital anomalies of the gall-bladder and the hepatic artery. KERN. Zentralbl. f. Chir. 9 3, xi, 690 [519]

The incidence of stone in Egypt, with remarks on series of 3 operations. F. C. MABRY. Lancet Lond. 9 3, cxi, 3

Statistical, clinical and chemical studies on the etiology of gall-stones with special reference to Japanese and German conditions. H. MINAKI. Arch. Clin. Chir. 9 3, xi, 34 [519]

Gall-stones, plea for earlier operation. D. ACRY. Power. Brit. J. Surg. 9 3, i, 1

A case of gall-stones with chronic pancreatitis. H. T. MORGAN. South African M. J. 9 3, xi, 50

Medical treatment of gall-stones. T. W. GRAYSON. Pittsburgh M. J. 9 3, i, 5

Injury of the gall bladder by bullet. O. VECSEI. Budapesti Kir. Orvosi. Társul., 9 3, xi, 387

The conditions of acidity of the stomach in affections of the gall-bladder and their value in therapeutics. OER. Deutsche med. Wochenschr., 9 3, xxi, No. 30

Cholecystitis and some of its sequelae. A. F. BARNETT. Tex. M. J. 9 3, xxi, 1

Congenital defect of the bile ducts. F. SCHOTT. Med. d. Hann. Staatsbibliothek, 9 3, iv, 1

Affections of the bile-ducts. PRINOMAT. Med. Klin. Berl., 9 3, xi, Nos. 39 and 30

Angiocholitis and biliary lithiasis. DILLER. Scap. d. Ligez. med., 9 3, iv, No. 32

A case of perforated common bile duct followed by subphrenic abscess, operation and recovery. C. CARRELL. HOSPITAL. Brit. M. J. 9 3, xi, 8

Cysts of the ductus choledochus. W. M. MIST. Verhandl. d. XII. Kong. Russ. Chir. Moscov. 9 3, xi, 6

Operative treatment of chronic occlusion of the choledochus. E. J. KRAMERSON. Verhandl. d. XII. Kong. Russ. Chir. Moscov. 9 3, xi, 57

Cholecystenterostomy for obstruction of the common bile duct due to multiple hydatid disease. G. H. ASHOTT. Australas. M. Gaz., 9 3, xxi, 76

Acute pancreatic syndrome. STORZ. Riv. op. Rom., 9 3, xi, No. 3

Clinical and experimental contributions on necrosis of the pancreas. SEBERT. Beitr. z. Klin. Chir. 9 3, lxxv, 5

Three cases of acute affections of the pancreas associated with multiple necrosis of the subperitoneal adipose tissue. KOLLOVSKY. Rusk. Vrach. St. Peterb. 9 3, xi, 68

Adenoma of the pancreas. PRINOMATSKY. Frankf. Ztschr. f. Path., Wiesb., 9 3, xxi, No. 3

Traumatic pancreatic pseudo-cyst. MONTAGNIER and STOUT. (Chir.) 9 3, xli, 309

Cyst of the pancreas. S. B. MARR. Ky. M. J. 1913, xi, 55

Diagnosis and treatment of acute affections of the pancreas. W. von REYNOL. St. Peterb. med. Ztschr. 9 3, xxi, 10

New technique for establishing permanent pancreatic fistula, prevention of adhesion and fistulae. A. FROST. Compt. rend. Acad. Soc. de Biol., 9 3, lxxv, 313 [519]

Recent studies on surgery of the pancreas. SEBERT. Med. Klin. Berl., 9 3, xi, No. 35

A lecture on enlargement of the spleen. F. T. VICE. Chir. J. 9 3, xli, 247

A case of subcapsular rupture of the spleen, splenectomy, recovery. MICHAILOFF. J. d. praticien, Par., 9 3, xxi, No. 38

Two cases of primary sarcoma of the spleen. PARLATO. Frankf. Ztschr. f. Path. Wiesb., 9 3, xxi, No. 3

Affections caused by echinococcus echinococcus of the spleen. W. SCHOTT. Chir. Moscov., St. Peterb. 9 3, xxi, 770

Rare disease. GUSTAV. Beitr. Klin. Chir. 9 3, lxxv, No. 3

The operative treatment of Rarer disease. TILMANN. Zentralbl. f. Chir. 9 3, xi, 97

Partial splenectomy in pelvic ectopy, splenectomy. C. TILMANN. Lower and M. M. M. Bull. méd. de l'Algérie, Alger 9 3, xxi, No. 11

Miscellaneous

The diagnosis of abdominal tumors. SCOTT. Frankf. Ztschr. f. Path. Wiesb., 9 3, xxi, No. 3

Gastrostomy of the abdomen followed by septal gastrostomy of the femoral vein, operation, recovery. W. GUSTAV. Lancet Chir. 9 3, xi, 44

Some acute abdominal perils. J. V. LARSEN. Chir. J. 9 3, xli, 83

The necessity for accurate pre-operative diagnosis and

the methods to be employed in intra-abdominal lesions. H. E. HAYD. Buffalo M. J. 9 3, liviii, 12.

Comparative studies on the value of unoperated cases of omphalocele, peritonitis and mesenteric for the re-enforcement of sutures. SASAKI. Deutsche Zeitschr. f. Chir. 9 3, cxviii, Nov. and

Some surgical diseases of the abdomen in children. HARRERT. Fræhthoofers Lond., 913, xci, 65.

Complications and sequelae of abdominal surgery P. F. LAWRENCE. Ohio St. M. J. 9 3, lx, 38.

Interesting cases of abdominal surgery. M. HANCOCK. Budapesti Orvosi Ujsag, Sebsect., 9 3, xi, 2.

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons— General Conditions Commonly Found in the Extremities

Negative pressure in the long hollow bones of the dog. A critical and experimental contribution on the article of the same title by Ernst O. P. Schaller and B. J. Behan. M. KOTENACK. München med. Wchnsch. 9 3, lx, 664.

Anatomical findings in imperfect osteogenesis. KARD. M. TIL. Vichow's Arch. f. path. Anat., etc. Berl. 9 3, cxvii, 436.

Processes of calcification in healthy and rachitic cartilage. A. HARTMANN. Stenograph. d. k. bayer. Akad. d. Wiss., Math.-physikal. Kl. 9 3, 71.

Multiplex cartilaginous exostoses. LALLEMAND. Fortsch. a. d. Geb. d. Röntgenstr. Hamburg. 19 3, xx, N. 5.

X-ray examinations in case of imperfect osteogenesis. E. FRISCH. Zeitschr. f. Röntgenstr. 9 3, xv, 70.

A typical injury of the medial condyle of the femur. EWALD. München med. Wchnsch. 9 3, lx, No. 30.

Perforations due to overstrain and spontaneous fractures in the army. WOLF. Deutsche med. Wchnsch. 913, xli, No. 14.

Necrosis of the humerus—the middle third, caused by osteomyelitis, false ankylosis of the elbow. CORNIO. Policlin. Roma, 9 3, xx, N. 20.

Acute osteomyelitis of the pubis. TERNER. Deutsche Zeitschr. f. Chir. 9 3, cxviii, Nov. 3-4.

The Osgood-Schlatter disease. W. M. MINNEY. Verh. d. XII. Russ. Chir. Kongr., 9 3, xxi, 201. (536)

Paget's bone disease. P. MARIE and A. LERIC. Handb. d. Neurol., 9 3, iv, 47. (528)

Epidemic osteitis localized in the bones and the lung and simulating tuberculosis. LAURICER. Loew. med. 9 3, cxviii, No. 7.

Tuberculosis of bones and joints. G. L. STARR. Am. Med., 9 3, viii, 47.

Surgical tuberculosis in children, with suggestions as to method of treatment. A. H. TOWSE. Lancet, Lond. 9 3, cxcv, 37.

Conservative treatment of surgical tuberculosis. MEINKE. Deutsche Zeitschr. f. Chir. 10 3, cxviii, Nov. 3-4.

Histopathologic treatment of surgical tuberculosis and tuberculosis of the bronchial glands by the acetate. R. FISCHER and F. STRAUSS. Berl. klin. Wchnsch. 9 3, l, 662.

The cut-out treatment of surgical tuberculosis. LOVETT and FINE. Boston M. & S. J. 9 3, cxli, 145.

Osteomyelitis of the superior extremity of the tibia. P. FIS. Progr. med. Par. 9 3, xlv, N. 20.

Hydatid cysts of the bones. BARNY. Gaz. d. hôp. Par. 9 3, cxviii, Nov. 70-80.

So-called osseous cysts. FISCHER. Policlin. Roma, 9 3, xx, No. 7.

Osteous surgery and heliotherapy. ANTON. Progr. med., Par. 19 3, lv, No. 28.

Traumatic chondrodystrophy. WAGNER. Arch. f. Gynak. 9 3, c, No.

Pseudo-arthritis of the right fibula. scoliosis caused by inequality of the lower limbs. BRODA. Presse med., Par. 9 3, cxv, No. 54.

Diseases of joints and bone marrow. L. ELY. Am. J. Surg., 9 3, cxvii, 547. (529)

The pathology of the knee-joint. BAER. Deutsche med. Wchnsch., 9 3, cxviii, No. 30.

Injuries of the crucial ligaments of the knee joint. GORTJES. Deutsche Zeitschr. f. Chir. 9 3, cxviii, Nov. 3-4.

The pathology and treatment of hallux valgus. A. S. B. B. VENT. Med. Press & Circ., 9 3, cxvi, 33. (521)

Establishment of the tuberculous nature of arthritic exudates by the specific cutaneous reaction of a tuberculous guinea-pig. R. HANCKMAN. Med. Klin., Berl., 9 3, lx, 947.

The conservative treatment of tuberculosis of joints. W. S. FRIEDMAN. Brit. M. J. 913, d, 69. (521)

Some remarks on gout, rheumatism, and rheumatoid arthritis. T. M. ALLISON. Clin. J. 9 3, xlii, 55.

Vaso-motor phenomena as precursory symptom in rheumatoid arthritis. J. LITTMAN. Clin. J. 9 3, xlii, 265.

Arthritis catarrhalis (Vollmann) during the development of case of Barlow's disease. WOLFF. Arch. f. Orthop. Mechanotherapie u. Unfallchir. 9 3, xvi, 376.

A case of paratyphoid arthritis of the foot. J. TILGNER and A. TADILL. Wien. klin. Wchnsch. 9 3, cxvii, 884.

Myosarcoma developing after diffuse hemangioma following an injection of serum. DOCKES. Bull. méd. de l'Algérie. Alger. 9 3, cxv, N.

Myositis ossificans. S. L. MCCURRY. Pittsburgh M. J. 19 3, 4, 3.

A bone encountered in the vastus externus muscle. PRINZ DE LON. Gaz. d. hôp. de Porto. 9 3, vii, No. 14.

The operative paralysis of the triangular muscle. T. WALLER. Zentralbl. f. Chir., 9 3, xi, 690.

The etiology of the bursitis. A. SCHWARTZ. Wien. med. Wchnsch. 9 3, cxvii, 884. (521)

Operation of the tendon of Achilles. L. MEYER. Berl. klin. Wchnsch. 9 3, l, 304.

Tenoplasty of flexor tendons of fingers. J. B. MCNEELY. Surg. Clin. f. B. Murphy. 9 3, ii, No. 8.

The relation between gangrene and accidents. DUK. Monatschr. f. Unfallch. u. Involverbess. 9 3, xx, No. 4.

Gangrene of the extremities and its treatment. H. ERICHSEN and M. MARSHALL. Wien. klin. Wchnsch. 9 3, cxvii, 958. (522)

A case of progressive septic and necrotic phlegmon of the hand (suppurative gangrene) treated after the method of Plassmann. C. CROGGERT. Abh. swen. Läkarsk. Stockholm, 9 3, x, 769.

Study of the collateral circulation in some cases of spontaneous gangrene of the foot. J. E. THOMAS. J. Am. M. Ass., 9 3, lxi, 75.

Determination of the ulnar limit in gangrene of the foot. S. VONCK. Zentralbl. f. Chir. 19 3, xi, No. 37.

A case of free transplantation of half joint. PETRA-SCHENSKA. Verhandl. d. wiss. Ver. d. Ärzte d. s. St. St. Petersburg. 9 3, xxii, 43. [525]

Orthopedics in General

Orthopedic surgery A. H. TURNEY Practitioner Lond. 9 3, xii, 83.

A textbook on operative orthopedics. O. VULPIUS and A. STORRER. Stuttgart: Enke, 9 3.

Practical progress in orthopedic surgery J. K. YOUNG. Dela. St. M. J. 9 3, iv. [523]

Orthopedics and its employment, in particular following serious operations. THOMASSEN. Voenno-med. J. St. Petersburg. 9 3, cccxviii July.

Congenital osteopetrosis. BARNES and HOLDEN. Jahrb. f. Kinderh. 9 3, lxxvii, No.

The pathology of idiopathic osteopetrosis. ZIEGLER. Deutsche Ztschr. f. Chir. 9 3, cccxii Nos. 3-4.

Partial defect of the sacrum, congenital pes. arcos, talipes equinus and valgus talus, malformation of the anus, paralytic symptoms, bilateral luxation of the coxa, and microcephaly. RIEDEL and VERRIER. Rev. d'orthop. Par. 9 3, xxiv No. 5.

A study of congenital dislocation of the hip with report of six cases. C. L. WAINWRIGHT. Physician & Surg. 9 3, xxiv 306. [525]

Multiple congenital osteochondromata with degeneration of cranial nerves and muscular dystrophy: report of case T. B. BOOCK. Bull. Johns Hopkins Hosp. 9 3, xxiv 9.

The familial occurrence of polydactylia and syndactylia. VOGEL. Fortsch. a. d. Geb. d. Röntgenstr. Hamburg. 9 3, ix, No. 5.

Extradactylia of the right foot. LEAU and LAMY. Rev. d'orthop. Par. 9 3, xxiv No. 5.

Recent studies on flat-foot and pes. albus. PETERBORN. Med. Kln., Berl. 9 3, ix, No. 20.

The physiological treatment of flat-foot. J. TRESCHELL. Med. Rec. 9 3, lxxvii, 62.

Results obtained with Staller's operation for flat-foot. MILLER. Beitr. z. klin. Chir. 9 3, lxxv No.

An operation for flat-foot. W. P. CARR. Am. J. Surg. 19 3, xxvii, 270. [525]

A modified combined plaster of Paris and court-plaster dressing for the treatment of club-foot. SPENCER. Münch. med. Wchnsch. 9 3, ix, No. 7.

Treatment of congenital club-foot. S. L. MCCORMY. Pittsburgh M. J. 9 3, i, 20.

SURGERY OF THE SPINAL COLUMN AND CORD

The correction of fixed scoliosis by Abbott's method. GIBBEL. Rev. d'orthop. Par. 9 3, xii, No. 5.

The Abbott treatment of rotary lateral curvature of the spine and details of the technique. KLEINROTH. Surg. Gynec. & Obst. 9 3, xvi, 3. [526]

Scoliosis and chronic appendicitis. MAYET. Paris chir. 9 3, i, 4.

Analysis of the spine. A. McGLASSAR. J. Abn. An. Coll. Physicians & Surg. Balt. 9 3, xvi, 45. [524]

Post-traumatic spondylitis or Kummel's disease. CHITTAR. Toulon med. 9 3, xv, 1.

A clinical contribution on rhizomelic spondylitis. POBILIN. Roma, 9 3, xi, No. 7.

Aspiration of case of spine abscess. M. E. BOLTON. Mass. M. J. 9 3, i, 6.

Graft of part of the tibia upon the dorsal part of the spinal column in the treatment of Pott's disease. ALGER. Rev. de chir. Par. 9 3, xxxii, N. 7.

Bone transplantation in treatment of Pott's disease. H. C. ALDRIDGE. J. Am. Inst. Homoeop., 19 3, i, 23. [526]

Methods of localization of spinal tumors with reference to their medical and surgical treatment. L. CASTELLI. Med. Rec. 9 3, lxxvii. [526]

Osteochondroma of the vertebral column. VALENTIN. Beitr. z. klin. Chir. 9 3, lxxv No.

Fractures of the fifth lumbar vertebra caused by compression. LEWANDOWSKY. Med. Kln., Berl. 9 3, ix, N. 26.

Clinical case report of fractured vertebra. F. C. KROST. J. Mich. St. M. Soc., 9 3, xii, 375.

Spontaneous reduction of dislocation of cervical vertebra. W. C. BRISTALL. Brit. M. J. 9 3, ii, 69.

Transpositional operation on the vertebra. W. MILLER. Verhandl. d. Gesellsch. deutscher Naturf. u. Ärzte, 9 3, ii, 8.

The vertebral canal in the lumbar region in man. BAUDOUX. Arch. prov. de chir. Par., 19 3, xix, No. 5.

A case of death following lumbar puncture. RUTEN. Med. Kln. Berl. 9 3, ix, N. 26.

Tumor of the cauda equina. B. LACROIX. Budapesti Orvosi Ujsag., 9 3, xi, 65.

SURGERY OF THE NERVOUS SYSTEM

The theory of the chromaffin system. (Adrena of the sympathetic nerve.) JACOBOWITZ. Russk. Vrach, St. Petersburg. 9 3, xii, 57.

Spastic paralysis of childhood and its treatment. K. BERNALDI. Deutsche med. Wchnsch. 9 3, xxxix, 609. [527]

The end results of operative treatment in thirty-three cases of spastic paralysis. H. C. HARRIS. Boston M. & S. J. 9 3, chix, 82. [527]

Experiences with the Stiefel operation for spastic paralysis. G. HORNBAUM. München. med. Wchnsch. 9 3, ix, 26. [527]

Paralysis of the recurrent nerve in medianusclerosis.

A. ADAM. Arch. f. Laryngol. u. Rhinol., 9 3, xxvii, 430.

Recklinghausen disease and the suprarenal capsules. BOUQUET. Echo méd. du nord, Lille. 9 3, xvi, No. 28.

Neuroma of the right cervical sympathetic ganglion. FAVARD. Frankf. Ztschr. f. Path. u. Wchnsch., 9 3, xii, N. 2.

Results of nerve suture. H. STROBEL and KRAMER. Beitr. z. klin. Chir. 9 3, lxxvii, 475. [527]

Exposure of the bronchial plexus with nerve transplantation. H. K. TUTTLE. J. Am. M. Ass., 9 3, lxi, 5.

Nerve plexus grafts. M. KATZENTRICH. Berl. klin. Wchnsch., 9 3, ix, 65. [527]

DISEASES AND SURGERY OF THE SKIN FASCIA, APPENDAGES

- Burns treated after Ederling's method. WOLFF. *München med. Wchnsch.* 9 3, 12, No. 30.
- The treatment of granulating wounds. WITTE. *München med. Wchnsch.* 9 3, 12, N. 30.
- The treatment of granulating wounds. R. C. M. *München med. Wchnsch.* 9 3, 12, N. 30.
- The treatment of fresh wounds and of severe burns. SCHÖN. *Med. Klin. Berl.* 9 3, 12, N. 26.
- Surgical aspects of furuncles and carbuncles. F. G. SCHILLER. *Penn. M. J.* 9 3, xvi, 700.
- Chronic glands of the skin and the furia. R. O. STERN. *Arch. f. Dermat. Syph. Prag.* 3, civ, 843.
- Report of interesting bacteriological findings in case of pemphigus. HIRSCH. *Berg. Gynec. & Obst.* 9 3, xiv, 85.
- Perforating plantar disease. MARCILLAC. *Clinique Par.* 9 3, xi, No. 27.
- Operative treatment of decubitus of the heel. LEBLANC. *Monsieur f. Unfalld. u. Invaliden vs.* 9 3, 12, No. 6.
- Clinical findings in X-ray ulcers. W. HAGER. *Strahlen-therapie.* 9 3, 4, 64.
- The treatment of varicose ulcer by simple scarified

- gauze dressing. WARTHEIMER. *München med. Wchnsch.* 9 3, 12, No. 27.
- Radiocurative treatment of varicose ulcers. BORCH. *J. ac. et med. de Poitiers.* 9 3, No. 6.
- Treatment of chronic ulcers of the leg, with special reference to symptomatology and diagnosis. E. ASARI. *Internat. J. Surg.* 9 3, xxiv, 51.
- Histogenesis of multiple carcinoma of skin. L. LOMB. *W. O. S. Z. Med. Research.* 9 3, xiv, No. 129.
- Prevention and treatment of cancer of the skin. M. F. DAVIS. *Med. Herald.* 9 3, xxiv, 7.
- On tumor and caterpillar skin grafting. A. MACLEAY. *Practitioner, Lond.* 913, xiv, 79.
- The free transplantation of fat. E. KLOPPER. *Chir. arch. Veliamskova, St. Petersburg.* 9 3, xiii, 453.
- Free (solid) transplantation experimental investigations. M. JORRE. *Chir. arch. Veliamskova, St. Petersburg.* 9 3, xiv, 466.
- Free transplantation of fascia. P. KORSEW. *Beitr. klin. Chir.* 9 3, lxxv, 44.
- A radical treatment of ingrown toe-nail. T. L. DRAVER. *Am. J. Surg.* 9 3, xiv, 243.

MISCELLANEOUS

- Gli. cal. Entities—T. mores, Ulcers, Abscesses, etc.
- Tumors. W. F. COLLEMAN. *St. Paul M. J.* 9 3, xv.
- Recent studies on tumors. L. W. C. *Med. Klin. Berl.* 9 3, 12, No. 28.
- Predominant tumors. GOLDSTEIN and ROY. *Verh. Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 1.
- The influence of nutrition on the growth of tumors. ACHTER. *Z. f. Krebsforsch. Berl.* 9 3, xiv, No. 1.
- Multiple primary malignant tumors. ACHTER. *Verh. Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 20.
- Factors in production and growth of tumor metastases. E. E. TYLER. *J. Med. Research.* 9 3, xvii, N. 120.
- Experimental cancer studies. H. W. NOWELL. *N. Eng. M. Gaz.* 9 3, xiv, 243.
- Etymology of cancer. W. L. BAKER. *Med. Herald.* 9 3, xiv, 7.
- The biology of cancer. ABRAMOWITZ. *Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 1.
- The importance of local cause of cancer. LEIDEN. *Verh. Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 26.
- A case of epithelioma grafted upon an ulcerated epithelioma. CAMERA. *Riv. op. Roma.* 9 3, 14, No. 1.
- Arterial cancer. W. H. NUTT, J. M. BRATT and R. J. PRE-CHITT. *Lancet Lond.* 9 3, xiv, 214.
- Concerning Hübner's article on "Experimental production of true cancer." Von RUDOLPH. *Schweiz. Z. f. Med. u. Nat. 93, 12, N. 7.*
- Interference in the metabolism of albumin in cancerous subjects. SATZ. *Wien med. Wchnsch.* 9 3, 12, No. 28.
- Researches on nematode and its power of producing papillomas and carcinomas. FISCHER. *Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 2.
- Experiments on mouse carcinoma. ECKHART. *München med. Wchnsch.* 913, 12, N. 7.

- Observations on an endemic of small mouse-cancer. HUBER. *Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 2.
- Remarks on multiplicity of carcinomas, based on case of triple carcinoma. GÖTTZ. *Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 2.
- May carcinoma heal spontaneously? TREIBER. *Deutsche med. Wchnsch.* 913, xiv, No. 27.
- The present results of surgical treatment of cancer. DUFFY. *Br. F. J. Surg.* 9 3, No. 4.
- The malignancy of giant-celled sarcoma. J. CLARK. *St. J. Surg. Gynec. & Obst.* 9 3, xiv, 30.
- Papillomas. BENDER. *Penn. med.-chir. Press.* 9 3, xiv, N. 27.
- Experiments on mammals respecting the production of artificial blastomas. REINER. *Zimbr. f. Krebsforsch. Berl.* 9 3, xiv, No. 1.
- Shock. A. W. COLLEMAN. *Internat. J. Surg.* 9 3, xiv, 55.
- The kinetic theory of shock and its prevention through shock-absorption. GEORGE W. LITTLE. *Lancet, Lond.* 9 3, xiv, 7.
- The process of digestion illustrated by the action of stains on the food tissues. E. E. COLEMAN. *Lancet, Lond.* 9 3, xiv, 69.
- Tetanus, report of case, three days' incubation. M. CASPER. *Ky. M. J.* 9 3, xiv, 509.
- A case of tetanus. SURT. *Rev. de med. y chir. pract.* Madrid, 9 3, xiv, No. 272.
- Unusual cases of hydatid disease. J. RAMBA. *Australas. M. Gaz.* 9 3, xiv, 587.
- Some unusual cases of hydatid disease. H. M. O'HARA. *Australas. M. Gaz.* 9 3, xiv, 587.
- A case of sporotrichosis. H. HECHE. *Arch. f. Dermat. Syph. Prag.* 9 3, civ, 843.
- Sporotrichosis. GORODKOV. *Clinique, Par.* 9 3, 12, No. 20.
- Diseases of glands with internal secretion. W. FAIT. *Beitr. Springer.* 9 3, 12, No. 20.

Classification of the glands of internal secretion and the products which they secrete. GALT. *Proces med.*, Par 9 3, xvi, No. 6a.

Polyglandular syndromes: juvenile diabetes, tumor of the hypophysis and infarctum. SANDROV and ROL. *Rev. med.*, Par 9 3, xvi, No.

The responsibility of the surgeon in the matter of operations. MAXWELL. *Par med.* 9 3, No. 30.

Cosmetic operations. ELLIOTT. *Wien med. Wchnsch.* 9 3, lxi, No. 22.

A mechanistic theory of disease. GEORGE W. CARR. *J. M. Soc. N. Y.* 9 3, x, 59.

Sera, Vaccines, and Ferments

The serum diagnosis of tybercle. V. B. NORTFIELD. *Indian M. Gaz.* 9 3, xi, vi, 50.

The diagnosis of malignant neo-growths and of pregnancy by Abderhalden's method. GAMBROFF. *München. med. Wchnsch.* 9 3, lx, N. 30.

Serum reaction after the method of Abderhalden. LACROIX. *München. med. Wchnsch.* 9 3, lx, No. 26.

Serological examination by the aid of Abderhalden's dialytic method in healthy and diseased subjects: studies on the specificity of the protective ferments. LAMPE and PAPAROTT. *München. med. Wchnsch.* 9 3, lx, No. 26.

Experimental researches on the specificity of the proteolytic ferments of Abderhalden. FRANK and ROSENTHAL. *München. med. Wchnsch.* 9 3, lx, No. 26.

The nature of the active ferment in Abderhalden's reaction. STREIBER. *München. med. Wchnsch.* 9 3, lx, No. 26.

Wassermann's reaction with normal rabbit serum. KOTLER and CAMPBELL. *J. Med. Research.* 9 3, xvi, No.

The quantitative amino (Nila) nitrogen content of syphilitic and nonsyphilitic serums. D. M. KAPLAN. *N. Y. M. J.* 9 3, xvi, 57.

Complement fixation in syphilis, with spirochaeta antigen. W. KOTLER and LAURAGUS. *J. Med. Research.* 9 3, xvi, No. 2.

Experimental and clinical results. Hb. Rosenbach. *tuberculin. K. LUNDA and H. KOON. Beitr. Klin. d. Tuberkul.* 19 3, xvii, 3. [527]

The treatment of surgical tuberculosis by means of Rosenbach's tuberculin. MYERS. *Beitr. Klin. Chir.* 9 3, lxxv, N.

Some phases of vaccine therapy. E. H. EASTMAN. *J. Ark. Med. Soc.* 9 3, x, 47.

Vaccine treatment in acute and chronic infective diseases. A. ROSE. *Practitioner* Lond. 9 3, xii, 56.

The treatment of cancer patients by vaccination. C. LEVY. *Therap. d. Gegenw.* 9 3, li, 53. [527]

Immunologic treatment in malignant tumors. KRONENFELD. *Med. Klin. Berl.* 9 3, li, N. 7.

The duration of passive immunity against tetanus toxin. E. H. RUTENFRANZ. *Philippine J. Sc.* 9 3, vii, 30. [527]

The reaction of deviation of the complement in gonorrheal affections. ROSENBERG. *Khar'kov med. J.* 9 3, xv, N. 4.

Amphibians in the diagnosis of cancer. J. L. RABINOWITZ. *J. Am. M. Ass.* 9 3, li, 8.

Blood

The history and origin of the leucocyte. H. D. MCCULLOCK. *Med. Press & Circ.* 9 3, xvi, 5.

Changes produced in the leucocytes of rabbits under the influence of cultures of staphylococci of various degrees of

virulence. W. J. GLADSTONHOFF. *Virchow's Arch. f. path. Anat., etc., Berl.* 9 3, cxvii, 45.

The leucocyt count in gas and ethyl chloride anaesthesia. GUY and REID. *Med. Press & Circ.* 9 3, xvi, 92.

Substances contained in the blood which possess the property of decreasing the caliber of the blood vessels in certain surgical affections. TACOMERO. *Vrach. Gaz., St. Petersburg.* 9 3, x, No. 25.

The clinical determination of vaso constrictive substances in the blood. GONAU. *Russk. Vrach., St. Petersburg.* 9 3, xii, 7 5.

The diagnostic value of the viscosity of the blood in surgical affections. FERNANDEZ. *Chirurgia, St. Petersburg.* 9 3, xvi, 635.

The diagnostic value of the determination of the viscosity of the blood in surgical affections. D. FERNANDEZ. *Ztschr. f. Chir.* 9 3, cxvii, 546.

A quantitative estimation of chlorides in the blood. A. W. OGDEN. *Wright. Indian M. Gaz.* 9 3, xvi, 54.

The occurrence of tubercular bacilli in the circulating blood. A. ROTHMAYER and CHIRAC. *Zentralbl. f. Bakteriol.* 9 3, liii, 475.

Complement content of blood in malignant disease. T. OGDEN and E. KELLER. *J. Med. Research.* 9 3, xvi, No. [527]

Local eosinophilia. BABOVIČEV. *Gaz. d. bop. Par.* 9 3, lxxvi, No. 84.

Is there genuine hemoglobinemia? McVIE. *Med. Klin. Berl.* 9 3, lx, No. 25.

The effect of hematin on the circulation and respiration. BROWN and LOVINGHART. *J. Exp. Med.* 9 3, xvi, 97.

Diagnosis of internal hemorrhages. SELDONOWSKI. *Zentralbl. f. Inn. Med.* 9 3, xvi, 650.

Various methods in use for the discovery of occult hemorrhages. HALLER. *Arch. d. mal. de l'appareil digest. et de la cuir.* Par 9 3, li, N. 7.

Neurotic hemorrhages. HART. *Frankf. Ztschr. f. Path. Wchnsch.* 9 3, xii, No.

The rational treatment of hemorrhagic affections of children. L. KUNZ. *Mbergs Arch.* 1913, xv, 2.

The successful treatment of hemophilic hemorrhages by the thermocauter. MYERS. *München. med. Wchnsch.* 9 3, lx, No. 25.

Thrombosis. HANSEN. *Virchow's Arch. f. path. Anat., etc. Berl.* 9 3, cxvii, No. 1.

Traumatic thrombosis of the inferior vena cava with respect to its incidence. WITTE. *München. med. Wchnsch.* 9 3, lx, No. 26.

Post-operative thrombophlebitis. W. D. HANSEN. *Lancet-Clin.* 9 3, cx, 87.

Arterial air embolism and the technique of artificial pneumothorax. F. JENSEN. *Deutsche med. Wchnsch.* 9 3, xvi, 445.

Fatty embolism, the fatty embolism of the brain. A. VITTE and FROSTEN. *Arch. de méd. expér. et d. anat. path.* Par 9 3, xvi, No. 4.

Transfusion of blood. TURPIN. *J. méd. franc.* Par 9 3, vi, 7.

Direct transfusion of blood. WERNER. *Brasil med., Rio de Janeiro.* 9 3, xvi, No. 3 20.

Prolonged intravenous infusion. M. FRIEDMAN. *München. med. Wchnsch.* 9 3, lx, 531. [527]

Severe intestinal hemorrhage in case of typhoid fever controlled by the intravenous injection of fresh human blood. OLIVIER. *Paris med.* 9 3, No. 32.

Affections of the hematopoietic apparatus; also contribution on tumors of the mediastinum. NICOL. *Beitr. path. Anat. u. allg. Path., Jena.* 9 3, lvi, No. 3.

Blood and Lymph Vessels

The relations of the inferior vena cava to the organs of the pelvic cavity. BOUQUET. *Paris méd.* 9 3, h. 34.
 Anomalous of the posterior tibial artery rupture of the sac; operation by the Mats method. PRINCE and ALBERT. *Canad. M. Ass. J.* 9 3, h. 583.

The rôle played by the veins in arterio-venous aneurysms. NAY. *Chir. arch. Velleinslova, St. Petersburg* 9 3, xxix, No. 3.

The question of the employment of steel suture the treatment of aneurysms. THORNTON. *Deutsche Zeitsch. f. Chir.* 19 3, xxviii, No. 2.

Chronic thoracic aortitis, symmetrical arteritis of the tibial arteries, resulting in gangrene. MARTIN and RIBOUT-LACHAUX. *Marseille méd.* 9 3, i, No. 14.

Phlebitis. D. DORCHOWITZ. *Practitioner Lond.* 9 3, xxi.

The medical treatment of phlebitis. H. VAQUEZ. *Med. Press & Circ.* 9 3, xxi, 83.

Treatment of varicose veins of the lower limbs by means of suprapubic-femoral anastomosis. LEPONANT. *France méd.* Par 9 3, xxi, No. 34.

Treatment of varices with spiral ligation. H. GRIFFITH. *München. med. Wochenschr.* 9 3, ix, 57. [533]

The treatment of wounds of the large arteries, more especially those which are produced by bullets of small caliber. WYNN. *Paris méd.* 9 3, h. 3.

Repair of portion of the abdominal aorta by the carotid artery of the same animal. E. JONES and H. JONES. *Arch. f. klin. Chir.* 19 3, i, 515.

A case of external lymphoedema cured by operation. I. WILKINS. *Bodapesti Orvosi Ujság. Sebészet*, 9 3, xi, 22.

Ligation in the treatment of chronic adenitis. BRADCHAMP and GOSSELWELL. *Sud. méd. Marseille*, 9 3, xiv, h. 962.

Poisons

The bacteriology of calf lymph. H. THIBOUT. *Austral. M. Gaz.* 9 3, xxvii, 77.

A case of streptococcal septicaemia. BALDWIN. *Gaz. d. osp. d. clin. Milano*, 19 3, xxvii, No. 8.

A case of septicaemia caused by pyocyaneus. T. ISOGUCHI. *Nippon Geka Gakai-Zasshi*, 9 3, xiv.

A case of staphylococci. SANCHEZ. *Scapud et Sépe méd.*, 19 3, lxx, No. 32.

Cob sepsis. L. F. JES. *Beitr. klin. d. Infektionskrankh.* u. Immunitätsforsch. 9 3, i, 575. [534]

Communication of cutaneous germs by the knife. STRANDBERG. *Zentralbl. f. Chir.* 9 3, xi, No. 26.

Surgical Therapeutics

Tetanus and Bacrell's treatment. Dr. MORRIS. *Policlin. Roma*, 9 3, xi, No. 27.

The treatment of tetanus is general and especially after the method of Bacrell. GOLANOW. *Policlin. Roma*, 9 3, xi, No. 27.

A case of tetanus cured after the method of Bacrell. RABITTI. *Policlin. Roma*, 9 3, xi, No. 27.

Treatment of case of tetanus according to the method of Bacrell. LARONX. *Policlin. Roma*, 19 3, xi, No. 27.

Case of tetanus cured by Bacrell's procedure of subcutaneous injection of phenic acid. POCALDO. *Policlin. Roma*, 9 3, xi, No. 27.

Carbolic acid treatment of tetanus. RABITTI. *Policlin. Roma*, 9 3, xi, No. 27.

Salicylic acid and carbocaine. METZGER. *Wien. med. Wochenschr.* 9 3, h. 11, No. 27.

Experimental researches on the treatment of bacillus by intravenous injection of salicylic acid. SCHWARTZ. *Russk. Vrach, St. Petersburg*, 9 3, xi, 732.

Bolus alba. BURKHOLDER. *Zentralbl. f. Chir.* 19 3, xi, No. 29.

Hexamethylenamine in surgery. A. C. BURNHAM. *Med. Res.* 9 3, lxxvii, 1.

Hexamethylenamine in the treatment of infection in the bowel and bile tract and to prevent post-operative pyrexia. P. LA ROOPE. *Therap. Gaz.*, 9 3, xxi, 457.

Saturated bismuth injections. REICHERT. *J. d. med. sciences, Par.* 9 3, xxviii, No. 30.

The decalcifying action of oxalic acid. T. MURRI. *Lancet Lond.*, 9 3, xi, 30.

The use of opium in gangrene. G. W. GAY. *Therap. Gaz.* 9 3, xxi, 457.

Electrology

Improved X-ray apparatus employing alternating current (Dessauer's Rotationsapparat). DESAUER. *Zentralbl. f. Röntgenstr., Radium u. verw. Geb.* 9 3, ix, 23.

Radiography and occupational accidents. DECOUX. *L'ouv. méd.*, 9 3, xxix, No. 7.

The X-ray and its possibilities in scientific research. R. H. PIERCE. *W. J. M. J.* 9 3, ix, 16.

Removal of foreign bodies under the control of radiography. MAUDCLAIR. *Arch. gén. de chir. Par.* 9 3, ix, No. 6.

Radio-active substances and their therapeutic employment. WALTER. *Fortschr. a. d. Geb. d. Röntgenstr. Hamburg*, 9 3, xi, No. 3.

Twenty-one new cases of radicular radiotherapy. ZIEBERG. *Cottentot and Dariaux. Arch. d'Electr. méd. expér. et clin., Bordeaux*, 9 3, xxi, No. 36.

The present status of radiotherapy in surgical tuberculosis. M. L. KARLEN. *Chirurgia, St. Petersburg*, 19 3, xxi, 611.

Conservative surgery from radiologic standpoint. C. JACKSON. *Am. Quart. Röntgenol.* 9 3, iv, 209. [534]

Treatment of electrical stenosis by means of electricity. POCALDO. *Marseille méd.* 19 3, i, No. 3.

Radiology of carcinoma. LARONX. *Berl. klin. Wochenschr.* 9 3, i, No. 22.

Experiences with radium treatment of malignant tumors. LARONX. *Wien. med. Wochenschr.* 9 3, xxi, No. 29.

The combined chemical and X-ray treatment of malignant tumors. SCHLIMMANN. *Deutsche med. Wochenschr.* 9 3, xxi, No. 7.

Anatomical findings in carcinomas treated by means of mesothorium and Röntgen rays. HILDL. *Arch. f. Gynäk.* 9 3, c, No. 3.

The physiological and therapeutic action of the derivatives of thorium. DE NOELLE. *Arch. d'Electr. méd. expér. et clin., Bordeaux*, 9 3, xxi, No. 36.

The most important causes of injuries due to electricity. H. ZANOWITZ. *Naturwissenschaften*, 9 3, i, 375.

The treatment of surgical tuberculosis by means of artificial light. HANSEN. *Deutsche med. Wochenschr.* 9 3, xxi, No. 30.

Malignant cure and heliotherapy. CONSTANTIN. *Arch. méd.-chir. de Provence, Fortiers*, 19 3, vii, No. 6.

Military and Naval Surgery

Military surgery. G. M. VILCK. *Am. J. Surg.* 19 3, xxi, 39.

Demonstrations in military surgery. WINCKEL. *Nark. Mag. f. Lægerlæren, Christiania*, 9 3, lxxv, No. 7.

Modern military surgery. H. KÖTTNER. *Post-Graduate*, 9 3, xxvii, 605.

Some new helpful means in military surgery on the field.
 MICHAM. Deutsche mil.-ärztl. Ztschr. 9 3, xlii, 464.
 Abdominal wounds produced by modern fire-arms.
 SALVARI. Ciba chir. Milano, 9 3, xii, N. 6.
 Dressing and transport of the wounded in naval warfare.

BARTHELEMY Arch. de méd. et de pharm. mil., Par.
 9 3, xcix, June.
 Wounds by fire-arms, especially by the N. gun
 revolver LINSLEY Votommo-ard. J. St. Petерб. 913
 convul., July.

GYNECOLOGY

Uterus

Histological diagnosis of tumors of the uterus. SCHOTT
 LINER Arch. f. Gynäk. 9 3, c, No.
 Chorion-epithelioma. C. B. KINTON Internat. J.
 Surg. 9 3, xcvi, 37.
 The question of cancer of the uterus. F. H. MARTIN.
 Med. Herald, 9 3, xcix, 7.
 Statistical contribution on the morphology of uterine
 carcinoma. J. OMATA. Arch. f. Gynäk. 9 3, xcix, 474.
 [533]
 The clinical position of carcinoma of the corpus uteri.
 WENZEL. Arch. f. Gynäk. 9 3, c, No.
 The true prophylaxis against uterine carcinoma,
 warning to gynecologists. BOSSI. Zentralbl. f. Gynäk.,
 9 3, xcix, No. 17.
 The treatment of uterine cancer. GUTTENBERG. Rev.
 ther.-un. de desc. med., Madrid, 9 3, xcix, No. 6.
 A comparison of the methods of treatment of carcinoma
 of the cervix. P. S. L. MOSCOW. Virginia Med. Semi-
 Month, 913, xcvi, 95.
 Surgical treatment of cancer of the uterus. CAN DELA
 Y PIA. Progres. med. la Habana, 9 3, iv, No. 6.
 Treatment of cancer with mesothorium emanations.
 PINHEIRO. Deutsche Gesellschaft f. Gynäk. Halle, 9 3,
 May. [534]
 Giant cystic myxomata. LITVON. Zentralbl. f. Gynäk.,
 9 3, xcix, No. 30.
 Radiotherapy of uterine fibromyomata. CALA
 TAVET CORTE. J. de radiol. Brux. 9 3, vi, No.
 A case of post-operative menstrial cystic hematomas.
 DE ROUSSELLE AND ARABYAT. Arch. mens. d'obst. et de
 gynéc. Par. 9 3, v, No. 6.
 A consideration of cystic tumors of the uterus of con-
 genital origin. V. UTERI. Ann. de gynéc. et d'obst. 9 3,
 x, 352. [535]
 A new loop for the bloodless suspension of the uterus
 in vaginal operations. SELLERME. Zentralbl. f. Gynäk.,
 9 3, xcix, No. 20.
 Technique of the amputation of the cervix of the uterus.
 BOCKERT. Gynécologie, Par. 9 3, xcvi, May.
 Hysterectomies, oophorectomies and abdominal sal-
 phurettomies. WUNDERLICH. Arch. brasil. de Med. 9 3,
 n. No. 4.
 Hemorrhage in an angiomatous fibromyoma of the
 uterus and atrophies of the uterine arteries. FLETCHER.
 W. S. W. J. Obst. & Gynec. Brit. Emp. 9 3, xciv, 22.
 Etiology and organo-therapy of uterine hemorrhages.
 KALLERT. Deutsche Gesellschaft f. Gynäk. Halle, 9 3,
 May. [536]
 The treatment of genital hemorrhages in cancer by
 means of blood sera. WENZ. Gynécologie Par. 9 3,
 xvi, May.
 New views on menstruation and its time relationship
 to ovulation. SCHROEDER. Monatsschr. f. Geburtsh.
 Gynäk., 913, xcix, No.

An obstinate metrorrhagia. K. F. L. KAMER. Nederl.
 Tijdschr. Geneesk., Amst., 19 3, No. 8, 327.
 Endometritis. J. F. MACKAY. J. Mo. St. Med. Ass.,
 9 3, x, 11.
 Double uterus and vagina. C. S. LAWRENCE. Southern
 M. J. 9 3, vi, 477. [536]
 A case of hour-glass contraction of the uterus. J. J.
 LAYTON. S. African Med. Rec., 9 3, xi, 59.
 Uterine prolapse. ROBERT O. EARL. St. Paul M. J.
 9 3, xv, 347.
 Congenital total prolapse of the uterus in new-born
 affected with spina bifida. RADWANNA. Gynäk. Rund-
 schau, 9 3, vii, No. 14.
 Surgical treatment of prolapse of the uterus and the
 vaginal alia. P. CORNET. Clinique, Par. 9 3, vii, No. 28.
 An operation for prolapse complicated by hypertrophy
 of the cervix. W. E. FOTHERGILL. J. Obst. & Gynec.
 Brit. Emp., 9 3, xciv, 99.
 Prolapsitis of the uterus and rectum at the age of 7
 years, with remarks on the treatment. DOUGLAS DREW
 LANCET, Lond. chirurg., 90.
 Prolapsitis uteri. Murphy's method of fixing the uterus.
 J. B. MURPHY. Surg. Clin. J. B. Murphy 9 3, ii, No. 3.
 [537]
 The etiology of retrodisplacement in virgins and nulli-
 parae. PARTNER. Gynécologie, Par. 9 3, xcvi, May.
 A new procedure for the relief of the retroverted uterus.
 J. F. KERRY. J. Ohio. St. M. Ass., 9 3, vi, 70. [537]
 The treatment of uterine retroflexion. FRAYGUE. Med.
 Klin. Berl., 9 3, ix, No. 28.
 Review of the literature and case reports of ruptured
 uterus. CARL G. D. VON. Surg. Gynec. & Obst., 9 3,
 xvii, 5. [537]
 The elimination of the danger of peritonitis in rupture
 and perforating injuries of the uterus. SNOWMAN. Arch. f.
 Gynäk., 913, N.
 The uterus of woman, its normal function and its rupture
 incident to labor. J. WUNDERLICH. Berlin. Karger 19 3. [538]
 An inverted chapter in gynecology uterine and adnexal
 syphilis. CHAM. Tex. St. J. Med., 9 3, iv, 95.

Adnexal and Peritoneal Conditions

The clinical significance of ruptures of follicles in the
 ovary. FRANK CORN. Arch. f. Gynäk., 9 3, xcix, 505. [538]
 Cure of an ovarian cancer with metastases by operation
 and subsequent X-ray treatment. VON FRANK. Deutsche
 Gesellschaft f. Gynäk. Halle 913, May. [539]
 Endothelioma of the ovary—with report of case of
 mesothelioma of the ovary. E. C. STEINHAUSEN. Lancet
 Clinic, 9 3, xi, 84. [539]
 Successful and combined method of blockchemic and
 X-ray treatment of malignant tumors, cure of recurrent
 ovarian sarcoma with metastasis in the spinal column.
 L. SEITZ. Deutsche Gesellschaft f. Gynäk. Halle,
 19 3, May. [539]

Ovarian hematomas and ovarian hemorrhages K. H. DERMAM. Duodena. 9 3, xix, 55. [539]
Experimental researches on the process of claustrum following ovarian resection KRAUS. Clin. chir. Milano 9 3, xii, No. 6.
Pyosalpinx excision. FELIX W. GARCIA. Med. Fortschritt. 9 3, xiv, 5.
Laboratory technique preparatory to pyosalpinx excision. ROBERT L. REESE. Med. Fortschritt. 9 3, xiv, 55.
A method of sterilization combined with certain total sterilization by means of extra-abdominal displacement. DE WITT STEETEN. Surg. Gynec. & Obst., 9 3, xiv, 20. [539]
A new operation for the sterilization of the woman, with future possibility of restoring the function. BURNARD. Brit. Med. J. 9 3, 4, 730. [540]
Treatment of sterility in women. FURK. BERG. and PLA. Rev. internat. d'obst. gynec., 9 3, vii, 8. [540]
Tubercle Membrane of the broad ligament. J. E. HERRICK. Surg. Gynec. & Obst., 9 3, xiv, 60. [540]
The treatment of prolepsis of the gestalla caused by extensive dislocation of the uterus by means of nature of the round ligaments to the levatores and Anus. Arch. prov. de chir. Par., 9 3, xiv, N. 5.
Rare distribution of reported dermoid contents. A. WOLFF. Deutsche Gesellschaft f. Gynak. Halle 19 3, M. [541]

External Gestalla

Septate uterus associated with single uterus. HOUTER. Zentralbl. f. Gynak. 9 3, xiv, N. 26.
Colpotomy preliminary to abdominal operations in cases of hematomas. LUCASO. Siglo med. Madrid, 9 3, ix, 370.
Gonorrhea of the female. J. S. JOHNSON. Kentuck. M. J. 9 3, xii, 65.
The transperitoneal circular route for the cure of certain operative neo-vaginal fistula. LECURE. Arch. prov. de chir. de Nantes. 9 3, 4. [541]
Experiences with the various treatment of gonorrhea in the female. HERR and MOON. Monatsh. f. Geburtsh. u. Gynak. 9 3, xiv, 63. [541]
Suppuration of the perineum in subject infected with typhoid bacilli. L. LAY. Deutsche med. Wochenschr. 9 3, xiv, 900.

Miscellaneous

X-ray treatment in gynecology. FÖRST. Deutsche Gesellschaft f. Gynak. Halle, 9 3, May. [542]
X-ray treatment in gynecology. E. RUSSE. Deutsche Gesellschaft f. Gynak. Halle, 19 3, May. [542]
X-ray therapy. WITTEN. Deutsche Gesellschaft f. Gynak. Halle 19 3, May. [542]
X-ray treatment. HERRICK. Deutsche Gesellschaft f. Gynak. Halle, 9 3, May. [542]
Radiotherapy in gynecology. D. THALLER. J. d. med. mod. de Lille. 9 3, xiv, No. 26.
The internal secretions as they concern gynecology. S. W. B. WOLFE. N. Y. M. J. 9 3, xiv, 1.
Tuberculosis of the female genitalia. Dr. BURNARD. Riv. osp., Roma, 11, N. 13.
Experimental contribution to the physiology of the female genitalia. O. O. FELLNER. Deutsche Gesellschaft f. Gynak. Halle 19 3, M. y. [542]
Imperfect development factor in genesis of diseases of women. B. S. MOON. J. Rec. Med. 9 3, ix, 45.
Pelvic pain and backache in women, based on reports of two hundred cases. J. C. SEAW. Internat. J. Surg., 9 3, xiv, 3.
Etiology and treatment of cystitis in women. F. W. GERRITSEN. Southern M. J. 9 3, vi, 7.
Cases illustrating certain urinary conditions in women associated with frequent or painful menstruation. D. NEW. N. Y. Clin. J. 9 3, xiv, 93. [542]
The treatment of post-operative infection of the female urinary tract. A. BARNARD. Ztschr. f. Gynak. Urol. Leipzig, 9 3, iv. [542]
Transverse laparotomy in gynecology. PATTER. Clinique Pa. 9 3, vii, No. 20.
The procedure of imbedding uterus and ovaries in paraffin. LOOS. Monatsh. f. Geburtsh. u. Gynak. 9 3, xiv, N. 1.
The use of screen in obstetrics and gynecology. A. MAYER. Med. Cor. Bl. d. württemb. Anst. Landeskr., 9 3, ix, 20. [542]
The significance of infestation in obstetrics and gynecology. A. MAYER. Deutsche Gesellschaft f. Gynak. Halle, 9 3, May. [542]
Constrictions in gynecology. HOWARD. CARPENT. T. 9 3, Am. J. Obst. N. Y. 19 3, ix, 28.

OBSTETRICS

Pregnancy and Its Complications

The thyroid in pregnancy. MARION and WING. Bull. Lying-in Hosp., 9 3, ix, 26. [543]
The significance of the ductless glands for the metabolism during pregnancy. J. LAMONTAGNE. Deutsche Gesellschaft f. Gynak. Halle. 9 3, M. [543]
Abdominal pregnancy. A living child. J. S. HERRICK. Surg., Gynec. & Obst. 9 3, xiv, 58. [543]
Bilateral pyosalpinx ectopic gestation. I. A. ANDERSON. Internat. J. Surg., 9 3, xiv, 249.
Ectopic gestation; report of a case operated upon before rupture. JOHN K. FREEMAN. Am. J. Surg., 9 3, xiv, 266.
Three cases of ectopic pregnancy. LUCASO. Siglo med. Madrid 9 3, ix, No. 3 09.

A case of extra-uterine pregnancy. C. H. MCGOWEN. Iowa M. J. 19 3, ix, 39.
Extra-uterine pregnancy: the importance of violent and repeated crises, supra-uterine hematomas. CHAPUT. Rev. de gynec. et de chir. abdom. Par. 9 3, xi, No. 6.
The surgical importance of new formations of blood vessels in extra-uterine pregnancy and in abdominal tumors. A. P. GURLEY. J. Am. med. Assn. 9 3, xiv, 123.
Cystic kidneys and pregnancy. F. HERRICK. Ztschr. f. Geburtsh. u. Gynak. 19 3, ix, 430.
The relation of pyelitis due to bacillus coli to leucoidy. MAYER. Abhandl. med. Wochenschr., 19 3, ix, No. 27.
Pregnancy and renal affections. SCHLATER. Monatsh. f. Geburtsh. u. G. Halle, 9 3, xiv, No. 2.

Cardiac changes during pregnancy. S. W. SCHWAB.
Arch. A. d. Geburtsh. gynaek. Klin. Prof. Redlich,
St. Petersburg. 9 3, 1, 2. [543]

The relation of cardiac disease to pregnancy labor and
parturition. WALTHER. Deutsche Gesellschaft f. Gynaek.
Halle, 9 3, May. [546]

Pregnancy and labor in organic heart disease. O.
GROTH. Allm. even. Läkarskän. Stockholm, 9 3, 2.
189. [546]

Amniotic growths during pregnancy. RUDKAR.
Clinique Par. 9 3, vii, No. 27.

Pregnancy following acromegaly. KALLIDA. Zen-
traltbl. f. Gynaek. 9 3, xxvii, No. 28.

A case of intestinal obstruction during gestation. LEVY.
KLUG, COHEN and PINARD. Ann. de gynéc. et d'obst.
Par. 9 3, 2, June.

Myoma operation during pregnancy. I. DER HOE-
VEN. Nederl. Maandschr. verlosk. en Vroouwenz. 9 3,
II, 285. [547]

Myoma, retroflexion, and pregnancy. VON VELD-
ER. Nederl. Maandschr. verlosk. en Vroouwenz. 9 3, II, 295.
[547]

The diagnosis and treatment of eclampsia. GEORGE.
W. KOSKAR. Bull. Lying-in Hosp., 9 3, vi, 29. [547]

Clinical lecture on puerperal eclampsia and its treat-
ment. J. VERT. Med. Press & Circ. 9 3, xxvi.

Two cases of eclampsia cured by means of extract of the
hypophysis. A. SCHLOSSBERGER. Deutsche med. Wochenschr.
9 3, xxix, 949. [547]

A short review of our present knowledge concerning the
pathology and etiology of eclampsia. R. ROBERT T. FRAN-
K. Am. Med. 9 3, vii, 48.

Observations on the toxemia of pregnancy. AN-
ROTH. Lancet, Lond. 9 3, clxxxv, 63.

Cesarean section. II. ON II. HALL. C. M. W. V. 31, 1,
9 3, vii. [548]

The stenosis occurring following the supravaginal and
extraperitoneal Cesarean section. KARL HARTMAN and
HERMANN LOFFSCHÜTZ. Gynaek. Rundschau, 9 3, vii,
154. [548]

The present status of the Cesarean section. FLOW-
ER. D. of Am. J. Obst. N. Y. 9 3, lix.

The chances for subsequent pregnancy after the classical
Cesarean section. V. DER HOEVEN. Nederl. Maandschr.
verlosk. en Vroouwenz. 9 3, II, 296. [548]

Cesarean section performed for vaginal stenosis follow-
ing an operation for vesico-vaginal fistula. W. BECKMAN.
Zucker f. Gynaek. Urol. Leips. 9 3, iv, 95. [548]

Supravaginal cervical Cesarean section. L. A.
MONTAGNER. f. Geburtsh. Gynaek. 9 3, xxviii, 68. [548]

Cesarean section on the dead and dying osseous. O.
KERNER. J. akrob. jensk. bolsh. St. Petersburg. 1,
xxvii, 590. [549]

Technique of Cesarean section. J. VERT. Zentraltbl. f.
Gynaek. 9 3, xxviii, 73. [549]

Results obtained with the Cesarean section in Russia
during the last 5 years. V. POZDANOV. Zentraltbl. f.
Gynaek. 9 3, xxviii, 757. [549]

A case of septic abortion. HANKE. Arch. med.-chir. de
Prov. Posen, 9 3, vii, 6.

An attempted abortion in case of ectopic pregnancy
together with contribution on violent ruptures of extra-
uterine pregnancies. SROGE. Zentraltbl. f. Gynaek., 9 3,
xxviii, No. 26.

Quinine in the treatment of incomplete abortion. ED-
WARD UNDERSON. Maryland M. J. 9 3, lvi, 7.

Management of miscarriage. L. L. ANDERSON. Kentucky
M. J. 9 3, xl, 590.

The conservative treatment of abortion and the results
obtained. T. COOPER. Med. klin. Berl. 9 3, ix, N. 27.

Labor and Its Complications

Some aspects of labor mechanism: the pelvic brim.
A. K. PADDE. Boston M. & S. J. 9 3, clxix, 54. [550]

A study of the induction and augmentations of labor
pains. WALTER E. WELLS. Am. J. Obst., N. Y. 9 3,
lxvii.

Intervention in cases of narrow pelvic inlet. RIBAU.
Bol. de med. y cir. Barcel. 9 3, xxvii, No. 5.

The treatment of frontal presentation. LAMER. Stan-
ches. med. Wochenschr., 9 3, ix, 860. [550]

Some sequelae of labor. BETHEL SOLONKOW. J. Obst.
& Gynec. Brit. Emp. 9 3, xlii, 2.

Tumors of the ovary in their relation to labor and their
secondary symptoms. PUCH. Montpellier med., 9 3,
xxviii, Nos. 28-29.

Acute dilatation of the stomach during labor and imme-
diately thereafter. R. D. BOYD. Tennessee med., 9 3,
xxix, 269. [550]

Operative procedures in congenital high dysplasia of the
shoulder-blade. KUBO. Zentraltbl. f. Chir. 9 3, xl, 86.

Uterine dystocia, secondary to airtal stenosis. AXEL.
Ries-Pichler. Northwest Med., 9 3, 96. [551]

Puerperium and Its Complications

A pathological condition which appeared during puer-
perium under the picture of cerebral tumor and eventuated
in recovery. PUEZ. Berl. klin. Wochenschr. 9 3, 1, No. 30.

Incidence of malaria in the puerperium. JAMES FRICK.
Southern M. J. 9 3, 1, 7. [551]

A case of puerperal eclampsia. J. L. FLEMMING. Therap.
Rec. 9 3, vii, 208.

Report of case of puerperal septicaemia. GERTRUDE
M. JOHNSON. J. Mich. St. Med. Soc. 9 3, vii, 505.

The passage of streptococci into the blood in the septic
puerperium. HICKEY. Gynaek. Rundschau, 9 3, vii, No.
14.

Post-abortion and post-partum hemorrhages. SCHREIB-
ER. Med. klin. Berl. 9 3, ix, No. 30.

Ovarian abscess after labor. ONKA. Finska lak.
säll. handl. Helsingfors, 93, 1, 447. [551]

Miscellaneous

Biological diagnosis of pregnancy. ENGELHORN. Zen-
traltbl. f. Gynaek. 9 3, xxviii, 73. [551]

The sero-diagnosis of pregnancy by the dialyzation
method. JELINGHRAVE and LOTTE. Bull. Lying-in Hosp.
9 3, ix, 68. [552]

The diagnosis of pregnancy by means of the dialytic and
optical methods. F. ABENHAGEN. Deutsche Gesellschaft.
f. Gynaek. Halle, 9 3, May. [552]

Aberdalen sero-diagnosis. EVLAK. Med. Klin.
Berl. 9 3, ix, No. 26.

Experiences with the Aberdalen test in the diagnosis
of pregnancy. GOTHEM and DUTCHEN. Med. Rec. 9 3,
lxvii, 90.

Aberdalen pregnancy reaction. A. MATTE. Deutsche
Gesellschaft f. Gynaek. Halle, 9 3, May. [552]

Aberdalen reaction. FRIEDRICH. Clinique, Par.
9 3, vii, N. 30.

Aberdalen ferment reaction. P. SCHLIER. Deutsche
Gesellschaft f. Gynaek. Halle, 9 3, May. [552]

The specificity of the placenta splitting ferments of
pregnancy serum. PETAL. Zentraltbl. f. Gynaek. 9 3,
xxviii, 73. [552]

Biological reactions and their importance for obstetrics
and gynecology. PETER. Monatsschr. f. Geburtsh. u.
Gynaek., 9 3, xxviii, No.

- Gonorrheal urethritis with complications. J J WALKER. N. Mex. M. J. 9 3, 97.
- Abscess of the cavernous part of the urethra. THORNTON. Chir. arch. Veliankova, St. Petersburg, 9 3 xix, No. 2.
- Internal urethrotomy. FACHS. Arch. Gaz. St. Petersburg, 9 3 xi, No. 5.
- Double epispadiac urethra. LEBROW. J. d'urolog. Par. 19 3 iv, No.
- Mistaken sex in consequence of penoscrotal hypospadias. ZORNELLE. Deutsche med. Wchnsch. 9 3, xxxix, No. 17.
- Peritomy. SALZMANN. Wien. med. Wchnsch. 913, liii, No. 30.
- The treatment of acute blepharitis. LEBROW. Terrap. Obourid. Odessa, 9 3 No.

Genital Organs

- Traumatic total loss of skin of the male sexual organs. K. BELFRAK. Nord. med. Ark. 9 3, xiv. [544]
- Gangrene of the scrotum, chancroid and epithelioma of the penis occurring simultaneously in same patient: recovery. W. C. BRYANT. Pittsburgh M. J. 9 3, 4, 39.
- A case of penoscrotal dermoid cyst. A. CARLSON. Brit. J. Surg., 9 3 i, 30. [544]
- Cauterization and operation for varicocele and hydrocele without wounding the scrotum. C. A. BUCKLEY. Med. Rec., 9 3 lxxiv, 23. [545]
- Recurrence of hydrocele after radical treatment. D. TAIT. Calif. St. J. Med. 9 3, xi, 52. [545]
- The hydrocele operation. MULLER. Zentralbl. f. Chir. 9 3 xi, No. 29.
- Acute orchitis in children. OBERDANKE. Presse med., Par. 9 3 xxi, N. 39.
- Orchitis and prostatitis, the stages of cure. VALLETTE. J. d. sc. med. de Lille, 9 3, xxvi, N. 25.
- Ectopia testis. E. M. ECKLES. Clin. J. 19 3, xlii, 54. [546]
- Structure and pathogenesis of embryonic teratoma of the testis. MYER. Frankl. Ztschr. f. Path., Wienn., 9 3 xii, No. 2.
- Fecundity of patients affected with bilateral tuberculous of the epididymis. FERNANDEZ. Deutsche med. Wchnsch. 9 3, xxxix, No. 20.
- Two cases of spermatic cyst associated with absence of the vas deferens. DE FRANCISCO. Reforma med. 9 3, xiv, No. 23.
- Operations on the seminal vesicles. VOLCKNER. Arch. f. klin. Chir. 9 3, of No. 4.
- Affections of the prostate gland. PORTER. Med. Klin., Berl., 9 3, ix, N. 20.
- On the value of cauterization by the high frequency current in certain cases of prostatic obstruction. A. R. STEVENS. N. Y. M. J. 9 3, xxvii, 70. [546]
- Carcinoma of the prostate. GIBBS. Zentralbl. f. d. Gesamte d. Med. Chir., 9 3 xvi, 579. [546]
- Metastatic carcinoma of the prostate simulating lymphosarcoma. LUNDGAARD. Virchow's Arch. f. path. Anat., etc., Berl., 9 3, cxvii, No.
- Carcinoma of the prostate gland simulating lymphosarcoma. LUNDGAARD. Hosp. Tid. Kjobenh., 9 3, lvi, No. 17.

- Carcinoma of the prostate gland: study of thirty-three cases. R. J. WILLIAMS. Brit. M. J. 9 3, 4, 60. [544]
- Slight and marked hypertrophy of the prostate. DE GALTIER. J. Méd. de Brux., 9 3, xvii, No. 20.
- Some conditions simulating prostatic hypertrophy. C. WALLACE. Clin. J. 913, xli, 209. [547]
- The post-operative complications of prostaticectomy. HENDER and FULLER. Surg., Gynec. & Obst., 9 3, xvi, 2. [547]
- Simplified prostaticectomy by the suprapubic way. D. W. BARNES. Med. Herald, 9 3, xxxix, 7.
- The technique of suprapubic prostaticectomy. BARRETT. Zentralbl. f. Chir., 913, xi, No. 23.
- Total prostaticectomy in the so-called prostatic hypertrophy. GAMBINO. Dissertation, St. Petersburg, 913. [547]
- Prostaticectomy in the aged. H. A. MOORE. Lancet. M. J. 9 3, xi, 441. [548]
- Drainage of the bladder in suprapubic prostaticectomy. C. MULLER. Ztschr. f. urol. Chir. 9 3, 4, 393.

Miscellaneous

- Elimination of errors in the X-ray diagnosis of urinary calculus. H. SIMONET. Lancet, Lond. 9 3, clxxxvii, 77.
- The shortcomings of ordinary clinical data in urological diagnosis. S. ARON. Internat. J. Surg. 9 3, xxvi, 17.
- The presumptive diagnostic value of the specific reaction of the urine in carbuncles. BALDWIN. Bull. d. sc. med., Bologna, 9 3, lixiv, No. 6.
- Transfusion of blood in profuse urinary hemorrhages. LEBROW. J. d'urolog. Par. 9 3, iv, No. 1.
- Staphylococci of urinary origin. LEBROW. People med., Par. 9 3, xiv, No. 30.
- The content of colloidal nitrogen in the urine of cancerous subjects. A. P. KOSKOV. Russk. Vrach. St. Petersburg, 9 3, xii, 937.
- Uroliths and lithotripsy. PRINCE. Arch. f. Schiffs. Tropen-Hyg., 9 3, xvi, 309. [549]
- Experiences with lithotripsy in complications of gonorrhea. E. FERNANDEZ. Wien. med. Wchnsch. 9 3, liiii, 159. [549]
- The use of the microscope in the treatment of gonorrheal urethritis and prostatitis. J. BROADMAN. N. Y. M. J. 9 3, xxviii, 1.
- Serodiagnostics of gonorrheal affections. J. A. FINKELSTEIN and T. M. GERSHWIN. Russk. J. kocherch. i. ven. bol. St. Petersburg, 913, xiv, 72.
- A routine method of examination in gonorrhea in the male as a guide to treatment. F. H. PICKER. Lancet, Lond. 9 3, clxxxv, 23.
- The prophylaxis and treatment of gonorrhea. G. LEON. Med. Fortnight, 1913, xlv, 55.
- Urogenital tuberculosis. B. KACZER. Budapesti Orv. és Urol. 9 3, xi, 6.
- Max-operative diagnosis in urologic operations. G. KOSKOV. J. Am. M. Ass., 9 3, lx, 74. [549]
- Agmatism and hypogonadism, connective tissue diseases as cause of multiglandular disturbances (Gonorrhea pluriglandularis). J. WINTER. Handb. d. Neurol. 9 3, iv, 407.
- A case of exploded urethroscope: lamp removal of fragment without operation or subsequent symptoms or sequelae. V. C. PROSSER. Med. Rec. 9 3, lxxiv, 58.

SURGERY OF THE EYE AND EAR

Eye

- Severe injuries to the eye and face by so-called "ter core and sodac golfballs." OLSHANSKY. Klin. therap. Wechschr. 9 3, ix, 604. [570]
- The importance of accurate diagnosis of affections of the eye. C. KOLLOCK. J. South Car. M. Ass. 9 3, ix, 77.
- Some remarks upon the diagnosis and treatment of lacrimal affections. S. STERNBERG. Clin. J. 9 3, xiii, 52. [570]
- Clinical lecture on the treatment of glaucoma with particular reference to the newer operations. S. STERNBERG. Med. Press & Circ. 9 3, xvi, 54. [570]
- The treatment of trachoma from a surgical standpoint. Dr. CARADORE. J. M. A. G. 9 3, iii, 72.
- Sarcoma of the iris. J. LOCKHART. Australas. M. Gaz. 9 3, xxxiv, 3.
- Cylindroma of the lower eyelid, (the nascent type of cylindroma). DUCLOS. Ann. d'oculist., 9 3, cxix, 445.
- Capillary sarcoma of the retina. H. FRENKEL. J. Ophth. Opt. & Laryngol. 9 3, xix, 268. [570]
- The genesis of orbital cysts and of anomalies of the retina and the choroid which occur in microphthalmos. R. BROADBENT. Arch. f. Ophth. 9 3, lxxv.
- Some common ocular manifestations secondary to disease of the nose and accessory sinuses. H. H. TURNER. Pittsburgh M. J. 9 3, 1, 40.
- A report of cases of tuberculous ophthalmia. D. V. SMITH. Physician & Surg. 9 3, xxxv, 3.
- Rare forms of tuberculosis of the eye and the eyelids. Box. Arch. f. Ophth., 9 3, lxxv, 273.
- Parinaud's conjunctivitis, mycotic disease due to hitherto undescribed filamentous organism. F. H. VERHOEFF. Arch. Ophth., 9 3, xli, 345. [571]
- What the general practitioner should know about gonorrheal uveitis. R. L. HARRIS. N. Orl. M. & S. J. 9 3, lvi, 6.
- A case of septic thrombosis of both ophthalmic veins and cavernous sinuses. J. R. MOSKOWITZ. Ohio St. M. J. 9 3, ix, 329.
- Cerebral localization from the standpoint of the oculist. D. T. VAN. Lancet-Clin. 9 3, cx, 60. [571]
- The anatomical relation of the sphenoid and posterior

- ethmoid cells to the optic nerve. L. H. CLARK. Habshemann. Month., 9 3, xlvii, 509.
- Retinal detachment. R. KESSEL. Ann. Ophth., 19 3, xiii, 437.
- The technique of opening the lacrimal sac by way of the nose. WERT. Arch. f. Laryngol. u. Rhinol., 9 3, xxvii, No. 3.
- The technique of intranasal dacryocystostomy. POLAK. Arch. f. Laryngol. u. Rhinol., 9 3, xxvii, No. 3.
- Sclerostomy. POOLLEY. Ophth. Rev. 9 3, xxii, 302.
- Surgical treatment of some eye affections in leprosy. A. HETMAEL. South African M. Rec., 9 3, xi, 246.

Ear

- Treatment of persistent otorrhea in infants and young children by the establishment of post-auricular drainage. W. C. PULLMAN. Laryngoscope, 9 3, xxii, 712.
- Multiple bilateral papillomata of the external auditory meatus. BERRY. Ztschr. f. Ohrenh. u. f. d. Krasnh. d. Luftr. 9 3, lxxvii, 77.
- Differential diagnosis and treatment of acute laryngitis. L. L. HARRINGTON. Laryngoscope 9 3, xxii, 78.
- A contribution to the pathogenesis and treatment of pharyngeal collections of otitic origin. M. GUILLEMIN. Thèse de Nancy 9 3. [571]
- Experimental researches on the effect of bacterial toxins and poisons on the auditory organism. K. BUCK. Ztschr. f. Ohrenh. u. f. d. Krasnh. d. Luftr. u. Wechschr., 9 3, lxxvi, 8.
- Localization of pulmonary metastases in otogenous stapes thrombosis. GARTNER. Ztschr. f. Ohrenh. u. f. d. Krasnh. d. Luftr. u. Wechschr., 9 3, xliii, No. 4.
- The path of access to the labyrinth after the method of Harris Mosher of Boston. LEC. Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx, Par. 9 3, xxxix, No. 6.
- Topography of the tympanic cavity. J. A. CA. ANAURE. Rhin. M. J. 9 3, xiv, 1.
- The treatment of some acute ear conditions by the general practitioner. C. C. EVANS. Penn. M. J. 9 3, xvi, 706.
- Plastic operation on the ear. J. B. MURPHY. Surg. Clin. J. B. Murphy 9 3, D No. 3.

SURGERY OF THE NOSE, THROAT AND MOUTH

- The most frequent etiological factor in spontaneous nose bleeding. MOSKOWITZ. Wien. med. Wochenschr. 9 3, liii, No. 27.
- Two remarkable cases of nasal calculus. HEDENMANN. Deutsche med. Wochenschr. 9 3, xxxix, h. 30.
- Primary malignant tumors of the naso-pharynx. Over. Arch. f. Laryngol. u. Rhinol. 9 3, xxviii, No. 3.
- A brief pathological study of papillomata with reference to their existence within the nose. R. B. SCARLETT. Laryngoscope, 9 3, xxix, 745.
- Effect of implantation of fibrous tumors of the naso-

- pharynx. FAIGAR. Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx. Par., 9 3, xxxix, No. 4.
- Isolated nasal polyp. WACHTER. Arch. f. Laryngol. u. Rhinol. 9 3, xxviii, No. 3.
- Endothelioma of the ethmoid bone. WALTER JEROME. Brit. J. Clin. Chir. 9 3, lxxv, 419.
- Treatment of fractures of the nose. SARGENT. Arch. Internat. de laryngol., d'otol. et de rhinol., Par., 9 3, xxxv, No. 3.
- Cysts of the maxillary sinus. COLLET. Rev. hebdom. de laryngol., d'otol. et de rhinol. Bordeaux, 9 3, xxxiv, No. 27.

The fat and cholesterol-content of the blood in pregnancy and the puerperium under normal and pathological conditions. DIZZO. *Ann. di ostetr. ginec.*, 9 3, xxiv, 48 [333]

Internal secretion and pregnancy. FRAENKEL. *Deutsche Gesellschaft f. Gynäk. u. Heilk.*, 9 3, May [333]

The proof of the presence of spermatozoa in the cervical canal in the cases of rape eighteen hours after the perpetration of the crime. C. D. JOHANSSON. *Upps. even Läkar-tidsn.* Stockholm, 9 3, 2, 345 [333]

Placental bacteremia. WARRINGTON. *Deutsche Gesellschaft f. Gynäk. u. Heilk.*, 9 3, May [333]

The location of the placenta. BOHM. *Ann. di ostetr. ginec.*, 9 3, xxiv, 348 [334]

Placenta of giant infants. R. COSTA. *Ann. di ostetr. ginec.*, 9 3, xxiv, 351 [334]

Intra-uterine sepsis. ARCH. *Monatsschr. f. Geburtsh. u. Gynäk.*, 9 3, xxviii, 70 [334]

A young human embryo. ZUGERMEISTER. *Deutsche Gesellschaft f. Gynäk. u. Heilk.*, 9 3, May [334]

Order of the amniotic fluid with pathological, experimental and clinical examinations of the function of the fetal kidneys. LEPPING and VERNER. *Deutsche*, 9 3 [334]

The administration of oxygen to the fetus. GROSSA. *P. SERRA. Med. Rec.*, 9 3, xxv, 30 [334]

Marked deformity of the limbs of a new born is consequence of birth from uterus bicornis unicollis. KALINOWITZKY. *Gynäk. Rundschau*, 9 3, 7, 5 [334]

Hemorrhage of the new-born and its prevention. L. I. BUKHARCHIKOFF. *Med. Rundschau*, 9 3, 2, 500 [334]

Interruption of pregnancy and sterilization at the same time by the abdominal path of access. SEITZ. *Monatsschr. f. Geburtsh. u. Gynäk.*, 9 3, xxviii, 70 [334]

On dilatation of the Fallopian tubes for sterility. ROSE. *T. Lewis. Brit. M. J.*, 9 3, 1, 70 [334]

The treatment of sterility by intra-uterine sepsis. REYNOLDS. *M. R. A. L. Am. J. Obst. & Gynec.*, 1914, 19, 25 [334]

Simple surgical treatment of the umbilical stump. R. NADOFF. *Zentralbl. f. Gynäk.*, 9 3, xxviii, 75 [334]

A new procedure for the enlargement of the pelvis. G. FERTIG. *Berl. klin. Wochenschr.*, 9 3, 1, 688 [334]

Pituitary in obstetrics. D. G. OY. *Horvitz. Med. Monatsschr. Verh. in Virovna*, 9 3, 2, 306 [334]

Pituitary extract in obstetrics. J. M. H. ROWLAND. *Maryland M. J.*, 9 3, 1, 172 [334]

Pituitary extract in sterility. J. C. CROFT. *Endocr. Am. J. Obst. & Gynec.*, 9 3, xxviii, 30 [334]

A contribution to the study of pituitary. N. BROW. *HEAVY. Surg. Gynec. & Obst.*, 9 3, xvi, 303 [334]

Surgery in obstetrics. BARNES. *Klin. therap. Wochenschr.*, 9 3, 22, No. 27 [334]

A study of forceps. ALVIN DORA. *J. Obst. & Gynec. Brk. Emp.*, 9 3, xxiv, 30 [334]

Statistics of Chinese pediatrics. VOSTROV. *Am. J. Arch. f. Schiff. Tropen-Hyg.*, 9 3, xvi, 311 [334]

GENITO URINARY SURGERY

Kidney and Ureter

Etiology and technique of operation in struma supra renalis cystica hemorrhagica. H. KOTTE. *Verhandl. d. Gesellschaft deutscher Naturforsch.*, 9 3, 4, 59 [334]

The suprarenal capsule in cancer of the kidney. Dr. BERRY. *Lancet*, 9 3, 2, 17 [334]

The cases of calculus of the kidney. NEGRET. *Rev. Ibero-am. de clinic. med. Madrid*, 9 3, xxiv, No. 66 [334]

Calculus kidney. S. CUA. *Sta. Ar. Urol. & Cutan. Rev.*, 9 3, xviii, No. 7 [334]

Report of five cases of nephroblastoma with special reference to the symptomatology. M. P. WARD. *Pa. M. J.*, 9 3, xvi, 70 [334]

On the differential diagnosis of appendicitis and nephroblastoma. KROVOTZKY. *Cal. St. J. M.*, 9 3, 21, 387 [334]

Four cases of nephroblastoma. L. C. CLARK. *Dando. Podsch. Brv.*, 9 3, xxii, No. 1 [334]

Kidney stone surgery. HERR. *L. KROVOTZKY. Urol. & Cutan. Rev.*, 9 3, xviii, No. 7 [334]

Rare injuries of the kidneys. A. PRIGER. *Verhandl. d. Gesellschaft deutscher Naturforsch. u. Arzt.*, 9 3, 4, 107 [334]

Serious dangerous injury to the right kidney. Very slight typical symptoms. M. H. SEARS. *Denver Med. Times*, 9 3, xxviii, 8 [334]

Congenital defect of the kidney (agenesia renalis) associated with uterus bicornis duplex cum vagina septa. GARTNER. *Arch. f. klin. Med.*, 9 3, xxviii, 90 [334]

A study of the mechanical obstruction to the circulation of the kidney produced by the experimental acute toxic nephropathy. ALKHA. A. GARDNER. *J. Exp. Med.*, 9 3, xxvi, 30 [334]

Unilateral fused kidney. ARTHUR STEIN. *Am. J. Obst. & Gynec.*, 9 3, xxviii, 43 [334]

An experimental study of unilateral hematuria of the so-called essential type. P. R. S. and MACNIVEN. *Surg. Gynec. & Obst.*, 9 3, xvi, 93 [334]

An unusual case of renal hematuria, unilateral chronic hemorrhagic nephritis, decapsulation; apparent cure; recurrence bilateral involvement; decapsulation of both kidneys six years later. WILSON. *George Vincent. Med. Rec.*, 9 3, xxviii, 66 [334]

Renal varix and hypertension as causes of symptomatic renal hematuria. D. VED. *N. Y. Arch. f. Surg.*, 9 3, 1, 4 [334]

An interesting case of renal hematuria, with three anomalous renal arteries. CHARLES M. HARRIS. *Urol. & Cutan. Rev.*, 9 3, xviii, No. 7 [334]

Embryonal adeno-sarcoma of kidney. JEFFERSON D. BLOOM. *Urol. & Cutan. Rev.*, 1914, xviii, No. 7 [334]

Unilateral polycystic kidney. CHARLES M. BARNETT. *Urol. & Cutan. Rev.*, 9 3, xviii, No. 7 [334]

Reconstruction of cystic kidney, with contribution to the development of cystic kidney. FOSMAN. *Brit. J. Path. Anat.*, 9 3, 1, 172 [334]

Further experiences with lactic and post-lactic abscesses of the kidneys. BARNES. *Wien. klin. Wochenschr.*, 9 3, xxviii, No. 27 [334]

The value of pain as symptom of renal disease. J. SWIFT. *Jour. Clinical J.*, 9 3, 1, 215 [334]

Renal gonorrhea. CHARLES HARTWELL. *Am. J. Urol.*, 1933 ix, 345

Pyelitis as clinical entity P I NICOV. *Southern M. J.* 9 3, vi, 46

Concerning forms of dull inter-costal neuralgia and its diagnostic value in affections of the renal pelvis LUTVSKY. *Russk. Vrach. St. Petersburg*, 9 3, xii, No. 3

Further experiences on the treatment of pyelitis by lavages of the renal pelvis. HORNWART. *München med. Wchnschr.* 9 3 ix, No. 26.

Pyelitis and otitis of the middle ear in animals. GLAUBER and FLEISCH. *Deutsche med. Wchnschr.* 9 3 xxxi, No. 30.

Chronic pyelonephritis in an infant FAIRBANK. *Arch. de méd., exper. et d'anat. path. Par.* 9 3, xiv, N. 4

Pyelotomy V ISRAEL. *Zschr. f. Urol.*, 9 3, vi, 534.

Very painful cases of sclero-edipose perinephritis. NUCOLICH. *J. d'urolog.*, Par., 9 3 iv, No.

Ligures perinephric phlegmon clinically and etiological difficult diagnosis. TATVETOV. *Lyon chir.* 9 3 x, No.

Tuberculous nephritis. ZOLLINGER. *Rev. suisse de méd.*, Basle, 9 3, xii, No. 20.

A form of experimental nephritis. J. FRANK CORBETT. *Urol. & Cutan. Rev.* 9 3 xvi, No. 7.

Indications for operation in chronic nephritis A. POCROW. *J. d'urolog.*, 9 3 iii, 77.

The surgical treatment of chronic nephritis. W. M. MYERS. *Chir. arch. Veleznova*, 9 3, xiii, 4 0.

The present standpoint on renal tubercle nephritis and nephritis surgery. E. ROSEN. *Engelb. d. Chir. u. Orthop.* 9 3, 4, 565.

Chronic nephritis from the point of view of surgery. J. MURRAY. *Thèse de Lyon*, 9 3.

The physiology of the kidneys and the functional diagnosis of the kidneys in renal surgery and internal medicine. V. BLUM. *Leipzig and Vienna. Deutscher* 9 3.

The early diagnosis of renal tuberculosis. R. C. BRYAN. *N. Y. M. J.* 9 3 xxvii, 563.

Pathology and therapy of renal tuberculosis. KARO. *Temp. Observat. Odessa*, 9 3, No.

Locating renal tuberculosis by means of radiography PAPPE. *Arch. urol. clin. de Necker Par.* 9 3, i, No.

Report of case of renal tuberculosis G. S. GORDON. *Am. J. Urol.*, 9 3 ix, 340.

Three cases of surgical renal tuberculosis in infancy ORAMONT. *J. d'urolog.* 9 3 iv, No.

The effect of intravenous injection of acids on the excretion of staining substances through the kidney ORAMONT and SCHWARTZ. *Arch. f. d. ges. Physiol.* 9 3, clxx, 87.

Functional diagnosis of the kidney BRODERICK. *Beitr. z. klin. Chir.* 9 3, lxxvii, No.

Functional tests of the kidneys and their importance for therapy. ROTH. *Med. Klin. Berl.* 9 3 ix, No. 25.

The uremic constant of Anbaird the coefficient of the secretion of urea for the determination of the functional value of the kidney BOUJARDON. *Poboln. Roma*, 9 3, ix, No. 30.

On the use of phenylalanine to determine the renal function prior to prostaticectomy W. D. HAMILTON. *Lancet Clin.* 9 3 cx, 33.

The determination of the histological index in tests of the function of the kidney R. BRODERICK. *Deutsche med. Wchnschr.* 9 3, xxxix, 338.

The function of the nerves of the kidneys. E. ROSEN. *and PR. ELLINGER. Zentralbl. f. Physiol.* 9 3 xxvii, 1913, cx, 27.

Surgery of the kidney W. E. ALTON. *Iowa M. J.* 1913, cx, 27.

Cystoscopic diagnosis of ureteral calculus and its removal by the vaginal path of access. HENNING. *Zschr. f. Geburtsh. u. Gynäk.*, 9 3 lxviii, 442.

Proctapex of the ureters through the urethra and notes on the histology of ectopic bulbosem. FRANQUET. *Monatsschr. f. Geburtsh. u. Gynäk.*, 9 3, xxxviii, Suppl. No.

Some new data on the etiology of hydronephrosis (congenital malformation of the ureter) N. A. ALICHAZOV. *Zschr. f. Urol.*, 9 3, xii, 564.

Contribution to the clinical study of strictures of the ureter large strictures. DUBROV. *J. d'urolog.*, 9 3 ix, 739.

Therapeutic catheterization of the ureters. BLUM. *Wien. med. Wchnschr.* 9 3 lxvii, No. 27.

Cystic dilatation of the caical end of the ureter RUX. *REL. Zschr. f. Urol.*, 9 3 ii, 541.

Bladder, Urethra, and Penis

Some remarks on the diagnosis of vesical complications in appendicitis and other lesions of the abdominal viscera. CHARLES CATTLEY. *Am. J. Urol.* 9 3 ix, 335.

A case of foreign body in the bladder removed by supra pubic incision. FICHARD. *Volenno-med. J. St. Petersburg*, 9 3, cxxxviii, June.

Intra-peritoneal rupture of the bladder; laparotomy recovery. STODOLSKY. *Rev. de med. y chir. de la Habana*, 9 3, xviii, No. 2.

Electro-coagulation of tumors of the bladder. LECHE. *Arch. urol. clin. de Necker Par.* 9 3, i, No. 2.

A case illustrating the efficiency of the high frequency current in the treatment of tumors of the bladder J. DRUMMOND. *Baldock Boston M. & S. J.* 9 3, chix, 0.

Cystitis. M. L. WILKINSON. *Tex. Med. News*, 913 xii, 1454.

Cystitis: acute and chronic. GEORGE WARFIELD. *Mass. M. J.* 9 3 vii, 53.

A case of cystitis E. STUIVER. *Denver Med. Times*, 9 3 xxxiii, 9.

A contribution to the study of ectopic vesico. KARL BRANDL. *Am. J. Urol.*, 9 3 ix, 333.

A simple procedure for suture of the bladder combined with cystostomy. HACHET. *Arch. med-chir. de Prov. Pontiers*, 9 3, viii, No. 6.

Madri operation in ectropio of the bladder. KUTY. *Med. Pract. Vrach. St. Petersburg* 9 3, xii, 127.

Applications of chromocystography. PULIDO MARTIN. *Sto. med. Madrid*, 9 3 ix, No. 3, 0.

Diagnosis and treatment of multiple ureteral calculi with report of unusual case. W. C. STEVENS. *J. Am. M. Ass.*, 9 3 ix, 86.

Stenosis of the urethra and urinary Ekliska. TATVETOV. *Progr. med. Par.* 9 3 xlv, No. 25.

Treatment of ruptures of the urethra. WILKINSON. *Brasil med.*, Rio de Janeiro, 9 3, xlvii, No.

Irreducible traumatic stenosis of the urethra urethrectomy and urethroplasty recovery. COCCEZ. *J. d'urolog.* Par. 9 3, iv, No. 1.

Treatment of inflammatory stenosis of the urethra by means of electrolytic dilatation. DUBROV. *Sod. med.*, Marseille, 9 3 xvi, No. 603.

Congenital strictures of the prostatic urethra with bladder hyperplasia, urethral dilatation and multiple abscesses of both kidneys. W. H. JOHNSON. *J. Am. M. Ass.*, 9 3 ix, 244.

Lesions of the posterior urethra in urinary neurasthenia. MARELL. *Arch. urol. clin. de Necker Par.* 9 3, i, No.

Lesions of the posterior urethra during urinary neurasthenia. LECHE. *Chirurg. Par.* 9 3 viii, No. 28.

- Gonorrheal arthritis with complications. J J WALKER. *N. Mex. M. J.* 9 3, 5, 97.
- Abscess of the cavernous part of the urethra. THORNTON. *Chir. arch. Velandova, St. Petersburg.* 913, xxxi, No. 3.
- Internal arthritides. FROSTEN. *Arch. Ges. St. Petersburg.* 9 3, xx, No. 1.
- Double epispadic arthritis. LEWIS. *J. d'uroi., Par.* 9 3, iv, No. 1.
- Mistaken sex in consequence of perineal hypoplasia. ZIMMER. *Deutsche med. Wochenschr.* 9 3, xxxi, No. 27.
- Perforary SALAMON. *Wien med. Wochenschr.* 9 3, lxvii, No. 30.
- The treatment of acute hemorrhoids. LEBER. *Temp. Obozrenie Odesa.* 9 3, N.

Genital Organs

- T actinic total loss of skin of the male sexual organs. K. BELFRAGE. *Nord med. Ark.* 9 3, iv. [564]
- Gonorrhea of the scrotum, chancroid and epithelioma of the penis occurring simultaneously in same patient recovery. W. C. B. 47. *Pittsburgh M. J.* 9 3, i, 30.
- A case of perineo-scrotal dermoid cyst. A. C. 188. *Bk. J. Surg.* 9 3, 30. [564]
- Castration and operation for arthrosis and hydrocele without wounding the scrotum. C. A. BUTLER. *Med. Rec.* 9 3, lxxv, 33. [565]
- Recurrence of hydrocele after radical treatment. D. TAIT. *Calif. St. J. Med.* 9 3, xi, 52. [565]
- The hydrocele operation. MILLER. *Zentralbl. f. Chir.* 9 3, xl, No. 20.
- Acute orchitis in children. OBERDORFER. *Presse med., Par.* 9 3, xxi, No. 50.
- Orchiditis and prostatitis, the status of cure. VALLET. *J. d'ac. med. de Lille.* 9 3, xxvi, No. 26.
- Ectopic testis. E. M. JONES. *Chir. J.* 9 3, xli, 241. [565]

Structure and pathogenesis of embryonic testicles of the testicles. M. V. 188. *Zschr. f. Path., Wien.* 9 3, xli, N.

Frequency of patients affected with bilateral tuberculous of the epididymis. FURBER. *Deutsche med. Wochenschr.* 9 3, xxxi, No. 20.

Two cases of spermatic cyst associated with absence of the vas deferens. DE FRANCISCO. *Riforma med.* 9 3, xlii, N. 23.

Operations on the seminal vesicles. VOLLMER. *Arch. f. klin. Chir.* 9 3, ci, No. 4.

Affections of the prostatic gland. POCHER. *Med. Klin., Berl.* 9 3, ix, N. 26.

On the value of cauterization by the high frequency current in certain cases of prostatic obstruction. A. R. STEVEN. *N. J. M. J.* 9 3, xxi, 70. [566]

Carcinoma of the prostate. GIBBS. *Zentralbl. f. d. Chir.* 9 3, xvi, 579. [566]

Metastatic carcinoma of the prostate simulating lymphadenoma. LUTHER. *Arch. f. path. Anat. etc., Berl.* 913, cxxii, No.

Carcinoma of the prostate gland simulating lymphadenoma. LUTHER. *Arch. f. path. Anat. etc., Berl.* 9 3, lvi, No.

Carcinoma of the prostate gland. study of thirty-three cases. R. J. WILLIAM. *Brit. M. J.* 9 3, ii, 60. [567]

Slight and marked hypertrophies of the prostate. DE GRONK. *J. Méd. de Brax.* 9 3, xvi, No. 24.

Some conditions simulating prostatic hypertrophy. C. WALLACE. *Chir. J.* 9 3, xii, 800. [567]

The post-operative complications of prostatectomy. HAGER and JONES. *Surg. Gynec. & Obst.* 9 3, xvi, 6. [567]

Simplified prostatectomy by the suprapubic way. D. W. RUSSELL. *Med. Herald.* 9 3, xxi, 7.

The technique of suprapubic prostatectomy. BERNER. *Zentralbl. f. Chir.* 9 3, xl, No. 18.

Total prostatectomy in the so-called prostatic hypertrophy. GARDNER. *Dissertation, St. Petersburg.* 913. [567]

Prostatectomy in the aged. H. A. MOORE. *Internat. M. J.* 9 3, xx, 643. [567]

Drainage of the bladder in suprapubic prostatectomy. C. MILLER. *Zschr. f. urol. Chir.* 9 3, i, 293.

Miscellaneous

Elimination of errors in the X-ray diagnosis of urinary calculi. H. GRIFFITH. *Lancet Lond.* 9 3, clxxxv, 77.

The observations of ordinary clinical data in urological diagnosis. S. VON. *Internat. J. Surg.* 9 3, xvi, 237.

The preoperative diagnostic value of the specific reaction of the urine in carcinomata. BALDWIN. *Bull. d'ac. med. Bologna.* 9 3, lxxv, No. 6.

Transfusion of blood in profuse urinary hemorrhages. LACET. *J. d'uroi., Par.* 9 3, iv, No. 1.

Suprarenaloma of urinary origin. LEITCH. *Presse med. Par.* 9 3, xlv, No. 30.

The control of colloidal nitrogen in the urine of cancerous subjects. A. P. KOVACH. *Russk. Arch. St. Petersburg.* 9 3, xli, 97.

Urotheloma and bilharziasis. PRINCE. *Arch. f. Chir. Tropen-Hyg.* 9 3, xvi, 340. [567]

Experiences with antiseptics in complications of gonorrhea. E. FRIED. *Wien. med. Wochenschr.* 9 3, lxx, 530. [567]

The need of the microscope in the treatment of gonorrheal retinitis and proctitis. J. BACHMANN. *N. Y. M. J.* 9 3, xvi, 303.

Secondary lesions of gonorrheal infections. J. A. FRIED. *St. Petersburg.* 9 3, xvi, 87.

A routine method of examination in gonorrhea in the male as guide to treatment. F. H. PIERCE. *Lancet, Lond.* 9 3, clxxxv, 70.

The prophylaxis and treatment of gonorrhea. G. LEVY. *Med. Fortnightly.* 9 3, xlv, 55.

Urogenital tuberculosis. B. KIMURA. *Badapost Orvosi Ujsag.* 9 3, xi, 9.

Mid-operative diagnosis in urologic operations. G. KOLLSCHER. *J. Am. M. Ass.* 9 3, lvi, 74. [567]

Apoplexia and hypogonadism; connective tissue diabetes as cause of mullerian duct disturbances (mullerian phlegmasia). J. WINTER. *Wien. d. Med. u. Chir.* 9 3, iv, 407.

A case of exploded urethraloscopic lamp removal of fragment without operation or subsequent symptoms or sequelae. V. C. PETERSON. *Med. Rec.* 9 3, lxxv, 13.

SURGERY OF THE EYE AND EAR

Eye

- Severe injuries to the eyes and face by so-called water core and sodic goffballs. OELLMANN. *Klin-therap. Wchnschr.* 9 3, xii, 604. [576]
- The importance of accurate diagnosis of affections of the eye. C. KOLLOCK. *J. South Afr. M. Ass.* 9 3, ix, 77.
- Some remarks upon the diagnosis and treatment of lacrimal affections. S. STRIMLING. *Clin. J.* 9 3, xli, 52. [576]
- Clinical lecture on the treatment of glaucoma with particular reference to the newer operations. S. STRIMLING. *Med. Press & Circ.* 9 3, xvi, 58. [576]
- The treatment of trachoma from a surgical standpoint. Dr. CARADONC. *J. M. Ass. Ga.* 9 3, ix, 75.
- Sections of the iris. J. LOCKHART. *Australas. M. Gaz.* 9 3, xxxv, 3.
- Cylindroma of the lower eyelid, (the nascent type of cylindroma). DUCLOS. *Ann. d'oculist.* 9 3, cxix, 445.
- Capillary aneurysm of the retina. H. FRIEDRICH. *J. Ophth., Otol. & Laryngol.* 9 3, xix, 268. [576]
- The genesis of orbital cysts and of anomalies of the retina and the choroid which occur in microphthalmia. R. BIRNBAUM. *Arch. f. Ophth.* 9 3, lxxxv.
- Some common ocular manifestations secondary to diseases of the nose and accessory sinuses. H. H. TURNER. *Pittsburgh M. J.* 9 3, 4, 49.
- A report of a case of tuberculous ophthalmia. D. V. SMITH. *Physician & Surg.* 9 3, xxxv, 3.
- Rare forms of tubercles of the eye and the eyelids. Bos. *Arch. f. Ophth.* 9 3, lxxxv, 273.
- Parkland's conjunctivitis mycotic disease due to bacteria undescribed filamentous organism. F. H. VAN SOEST. *Arch. Ophth.* 9 3, xli, 345. [571]
- What the general practitioner should know about gonorrhealthritis. R. L. HARRIS. *N. Orl. M. & S. J.* 9 3, lxxv, 6.
- A case of septic thrombosis of both ophthalmic veins and cavernous sinuses. J. R. MOSKOWITZ. *Ohio St. M. J.* 9 3, ix, 199.
- Cerebral localization from the standpoint of the oculist. D. T. VAIL. *Lancet-Clin.* 9 3, cx, 60. [571]
- The anatomical relation of the sphenoid and posterior

ethmoid cells to the optic nerve. L. H. CLARK. *Hahemann. Month.* 9 3, xlvii, 509.

Retinal detachment. K. KÖHNEN. *Ann. Ophth.* 9 3, xxi, 437.

The technique of opening the lacrimal sac by way of the nose. WERT. *Arch. f. Laryngol. u. Rhinol.* 9 3, xxvii, No. 3.

The technique of intranasal dacryocystostomy. POLAK. *Arch. f. Laryngol. u. Rhinol.* 9 3, xxvii, No. 3.

Sclerostomy. POOLLEY. *Ophth. Rev.* 9 3, xxxii, 302.

Surgical treatment of some eye affections in leprosy. A. HIRMAN. *South African M. Rec.* 9 3, xi, 249.

Ear

Treatment of persistent otorrhea in infants and young children by the establishment of post-auricular drainage. W. C. PRITZLER. *Laryngoscope.* 9 3, xxii, 778.

Multiple bilateral papillomata of the external auditory meatus. BLAY ZISCH. *f. Otorrh.* f. d. Krankh. d. Luftr. 9 3, lxxv, 77.

Differential diagnosis and treatment of acute labyrinthitis. L. L. HANAUER. *Laryngoscope.* 9 3, xxxi, 78.

A contribution to the pathogenesis and treatment of pharyngeal collections of otitic origin. M. GUILLEME. *Thèse de Nancy.* 9 3. [571]

Experimental researches on the effect of bacterial toxins and poisons on the auditory organism. K. B. CH. ZISCH. *f. Otorrh.* u. f. d. Krankh. d. Luftrage, Wschb. 9 3, lxxv, 8.

Localization of pulmonary metastases in otogenous otitis thrombotica. GARTER. *Ztschr. f. Otorrh.* u. f. d. Krankh. d. Luftrage, Wschb., 9 3, xlvii, No. 4.

The path of access to the labyrinth after the method of Harris Mosher of Boston. LOC. *Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx.* Par 9 3, xxix, No. 6.

Topography of the tympanic cavity. J. A. CA. ARATON. *Illinois M. J.* 9 3, xxv.

The treatment of some acute ear conditions by the general practitioner. C. C. EVES. *Penn. M. J.* 9 3, xvi, 796.

Mastec operation on the ear. J. B. MURPHY. *Surg. Clin. J. B. Murphy.* 9 3, ii, No. 3.

SURGERY OF THE NOSE, THROAT AND MOUTH

The most frequent etiological factor in spontaneous nose-bleeds. MOSKOWITZ. *Wschb. med. Wchnschr.* 9 3, lxi, No. 27.

A remarkable case of nasal calculus. HIRSHMAN. *Deutsche med. Wchnschr.* 9 3, xxxv, No. 30.

Primary malignant tumors of the naso-pharynx. OPPENHEIM. *Arch. f. Laryngol. u. Rhinol.* 9 3, xxi, No. 3.

A brief pathological study of papillomata with reference to their existence. With the nose. R. B. SCARLETT. *Laryngoscope.* 9 3, xxxi, 765.

Effect of implantation of fibrous tumors of the naso-

pharynx. PALGAR. *Ann. d. mal. de l'oreille, du larynx, du nez et du pharynx.* Par 9 3, xxxix, No. 6.

Isolated nasal polyp. WACHTER. *Arch. f. Laryngol. u. Rhinol.* 19 3, xxvi, No. 3.

Endothelioma of the ethmoid bone. WALTER JEROME. *Berlin u. Klin. Chir.* 9 3, lxxxv, 49.

Treatment of fractures of the nose. BARON. *Arch. internat. de laryngol., d'otol. et de rhinol.* Par 9 3, xxv, No. 3.

Cysts of the maxillary sinus. COLLET. *Rev. hebdom. de laryngol., d'otol. et de rhinol.* Bordeaux, 9 3, xxxiv, No. 27.

The treatment of alveolar fistulae of the maxillary sinus. TOCART. Arch. Internat. de laryngol., d'otol. et de rhinol., Par. 9 3, xxiv No. 3.

Tuberculosis of the accessory sinuses of the nose. DORR. Arch. f. Laryngol., Rhinol., 9 3, xxvi, 446.
Some remote effects of chronic sinus suppuration. R. C. LYNN. New Orleans M. & S. J. 9 3, lvi, 30.

The use of arsenical compounds for syphilitic disease of the nose and throat. Notes on sixteen cases. HAROLD L. WALKER. Lancet, Lond. 913, clxxxv, 6.

Nasal sepsis and its relationship to the syndrome of sphenopalatine ganglion neuritis. JOHN J. KYLL. Internat. M. J. 9 3, xi, 63. [1922]

On undertaking subnasal septum work. DOUGLAS MACFARLAN. J. Ophth., Otol. & Laryngol., 9 3, xii, 265.

Further experience with method for prevention of perforation in subnasal resection. RICHARD M. NELSON. J. Med. Am. Ga. 9 3, xi, 75.

Subnasal resection. D. C. KROEDER. Pittsburgh M. J. 9 3, 4, 77.

Therapeutics of the nose. JOHN B. GARRISON. Hakone Monthly 9 3, xlvii, 30.

A simplified method of radical operation in purulent inflammation of the frontal sinus. MALJOTTE. Arch. f. Laryngol., Rhinol., 9 3, xxvi No. 3.

Surgery of the nasal sinuses. WALTER KLEINSTEIN. Epochen d. Chir. u. Orthop., 913, vi, 35. [1922]

The anatomical and clinical relations of the sphenoidal sinus to the cavernous sinus and the nerve stems of the oculomotor, trochlear, trigeminal, abducent and vagus nerves. GREENFIELD STUBBS. Arch. f. Laryngol. u. Rhinol., 9 3, xxvi, N. 3.

Palato-laryngeal hemiplegia of traumatic origin. BENJAMIN. Rev. hebdom. de laryngol., d'otol. et de rhinol., Bordeaux, 9 3, xxiv No. 30.

Traumatic hematomas of the larynx, its development and transformation into an angiofibrous tumor. PHILIP REV. hebdom. de laryngol., d'otol. et de rhinol., 19 3, xxiv 65.

Hemorrhages in endolaryngeal interventions. MICHAM. Arch. Internat. de laryngol., d'otol. et de rhinol., Par. 9 3, xxiv No. 3.

Metastatic abscesses of the laryngeal mucosa. In pyridine. INOMER. Zeitsch. f. Laryngol., Rhinol. u. f. Grenzgeb. 913, iv No.

Alcohol injections into the superior laryngeal nerve in tuberculous laryngitis. WILLIAM MITCHELL. Ohio St. M. J. 9 3, ix, 35. [1922]

Nasal craniotomy, with the presentation of an efficient conservative operation for its cure. H. C. MARLANT. N. Y. M. J. 9 3, xxvii, 90. [1922]

The recent progress of endoscopic methods as applied to the larynx, trachea, bronchi, esophagus, and stomach. C. JACKSON. Laryngoscope, 9 3, xxvi, 7.

Some cases of total extirpation of the larynx. S. VII. REV. Arch. Internat. de laryngol., d'otol., et de rhinol., Par. 19 3, xxiv N. 3.

Four cases of glottic apnea in adults, with unusual find-

ings in the lower half of the larynx and the trachea. FRANK. Zeitsch. d. Ohrenh. u. f. d. Knnk. d. Luftrage, Wnsh., 9 3, xlvii, No. 4.

Primary carcinoma of the epiglottis. MA. xx. Arch. f. Laryngol. u. Rhinol., 9 3, xxvi, No.

A piece of glass which lodged in the pharynx after transfixing the carotid region: removal by the natural path of access: presentation of the foreign body and of the patient. MOUTON. Arch. Internat. de laryngol., d'otol. et de rhinol., Par. 9 3, xxiv No. 2.

Acute pharyngeal tonsillitis. HOMER DUFFY. New Orleans M. & S. J. 9 3, lvi, 8.

One hundred cases of peritonsillitis. CHARLES HYGGE, Stockholm, 9 3, lvi No. 6.

The question of the tonsils. JACQUES. Rev. hebdom. de laryngol., d'otol. et de rhinol., Bordeaux, 9 3, xxiv No. 23.

Pathology of the palatine tonsils. INOMER. Prag med. Wchnsch. 9 3, xxvii, 4.

Some observations from tonsil and adenoid operations. W. C. KILLGORE. J. Med. Am. Ga., 9 3, xi, 75.

Conservative treatment of the tonsils. KASER. Med. Klin. Berl. 9 3, ix, No. 39.

The results of tonsillectomy under local anesthesia. BYRON DE FOREST SERRIN. Chicago Med. Recorder 1913, xxiv 371.

The difficulties of tonsillectomy and how to deal with them. JOHN O'MALLEY. Lancet, Lond., 9 3, clxxxv 9.

Treparking the maxillary bone in dental myelocyst: contribution on death due to sepsis following extraction of tooth. B. MAYNARD. Wien. klin. Wchnsch. 1913, xxvi.

Pathology of the affections of the mucous membrane of the mouth and the pharynx. LEVINSKY. Zeitsch. f. Laryngol., Rhinol. u. f. Grenzgeb., 913, iv No. 2.

Extension oral surgery (tongue and tonsils) without section of the mandible or tracheostomy. KURN. Zeitsch. f. Laryngol., Rhinol. u. Grenzgeb. 9 3, iv No.

Amputation of the tongue by the buccal path of access. B. WERT. Tooloose med., 913, xv No. 3.

Use of palate mucous membrane flaps in ankylosis of the jaw due to cicatricial formations in the cheek. JOHN H. MURPHY. J. Am. M. Ass., 9 3, ix, 245. [1922]

Cleft palate and hare-lip. STEWART L. MCCURDY. Pittsburgh M. J. 9 3, 4, 34.

Inflection of the lingual nerve for operations upon the tongue and for relief of pain in inoperable carcinoma. P. G. SKILLMAN. Surg., Gynec. & Obst., 9 3, xix, 14. [1922]

The plate in dental radiography. LYONS AND SANCHEZ. Guy's Hosp. Gaz., 19 3, xxvi, 37.

A peculiar case of suppurative of the maxillary sinus of dental origin; complications. WOLFGANG RICHTER. Deutsche Monatsschr. f. Zahnhe. 9 3, xxv, 14.

The present status of local anesthesia in dentistry. GORREDO. Odontol. Obozreniye, St. Petersburg 9 3, No. 3, 301.

DECEMBER 1913

International Abstract of Surgery

SUPPLEMENTARY TO
Surgery, Gynecology and Obstetrics

PUBLISHED IN COLLABORATION WITH

Journal de Chirurgie, Paris

Zentralblatt für die gesamte Chirurgie und ihre
Grenzgebiete Berlin

Zentralblatt für die gesamte Gynäkologie und
Geburtshilfe sowie deren Grenzgebiete Berlin

EDITORS

FRANKLIN H. MARTIN Chicago

AUGUST BIER Berlin

B. G. A. MOYNIHAN Leeds

PAUL LECÈNE, Paris

EUGENE S. TALBOT JR., Abstract Editor

INTERNATIONAL SECRETARIES

CARL BECK, Chicago

J. DUMONT Paris

EUGENE JOSEPH Berlin

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

AMERICA E. Wylys Andrews Willard Bartlett Frederic A. Bealey Arthur Dean Bevan J. F. Bunker George E. Brewer W. B. Bruns Made John Young Brown David Cheever H. R. Chislet Robert C. Coffey F. Gregory Connell Frederic J. Cotter George W. Cui W. R. Cuthbert Harvey Coaling J. Chalmers DeCorta Charles Davison D. N. Deendath J. M. T. Finney Jacob Frank Charles H. Frazier Emanuel Friend Wm. Fuller John H. Gibson D. W. Graham W. W. Grant A. E. Halstead M. L. Harris A. P. H. Inock William Hoesert Thomas W. Huntington James N. Jackson E. B. Judd C. E. Kahle Arthur A. Law Robert G. Le Conte Dean D. Lewis Archibald MacLaren Edward Martin Rodolph Matas Charles H. Mayo William J. Mayo John R. McDill

Editorial Staff continued on page 1c, and 2d

Editorial communications should be sent to Franklin H. Martin Editor 31 N. State Street, Chicago
Editorial and Business Offices. 31 N. State Street, Chicago Illinois, U. S. A.
Publishers for Great Britain. Baillière Tindall & Cox, 8 Henrietta St., Covent Garden, London

AUTHORS

OF THE ORIGINAL CONTRIBUTIONS WHICH ARE ABSTRACTED IN THIS NUMBER

- Abbe, R., 650
 Adair F L., 666
 Adams, Z. B., 64
 Allen, L. W., 61
 Armstrong, G. E. 638
 Auer 647
 Auston, A. 607
 Bade P., 64
 Bailey H C. 667
 Balach, 655
 Baldwin, J. F. 662, 663
 Beck, E. G., 645
 Beck, J. C., 683
 Beach, P. 63
 Bogdanowitch, M., 663
 Bonasson, 69
 Bondy O. 656
 Botey R., 680, 68 685
 Bromberg, R., 673
 Brunner F. 600
 Bruns, 666
 Bryant, W. S. 68
 Bucholz, C. H. 640
 Buxton, H. G. 674
 Bylowsky F. W. 654
 Baboo, A. E. 679
 Bosch, E. W., 66
 Burton, D. W. 597
 Cabot, H., 677
 Calland, E. 599
 Cannon W. B. 648
 Carman, R. D. 630
 Carroll, A., 633
 Case, J. T. 628
 Cichelli, S. 620, 644
 Clendenen L. 644
 Christ, J. 67
 Coats, G. 678
 Cohnmann, O. 669
 Cole, L. G., 644
 Colman, F., 608
 Condon, A. P. 671
 Connell, K., 60
 Crankshaw, J. 646
 Cullen, T. B., 657
 Daubler H. W. 634
 Davis, E. P. 66
 Day G. H. 677
 Dean, G. 6
 Deaver J. B. 676
 Delapierre H. 6
 Dench, L. B. 679
 Depupe, 639
 De Guvral, F. 642
 De Santis, P. R. W. 644
 Decapentines, M. 598
 Dietrich, 666
 Dohl, 634
 Dollinger, B., 637
 Draback, 619
 Eastman, J. R., 627
 Eckels, L. B., 675
 Edmonds, W. 6
 Ekborn, M., 646
 Elker F., 630
 Ely L. W. 636
 Engelsing, E., 662
 Falconer, A. W. 6
 Fowler, R. S., 63
 Francis, J. 674
 Francis, H. W. 613
 Freund, E. 645
 Gallant, A. E., 663
 Gammertoft, S. A., 660
 Gersbach, 659
 Gersbicki, 60
 George, A. W. 625
 Gibson, J. H., 673
 Glyn, L., 67
 Goodale, J. L., 684
 Graham, A. 65
 Grigorjew, S. P. 669
 Guggenheim, H. 648
 Guibal, P. 65
 Guile, 68
 Gunkel L. 653
 Guvathney J. T. 599
 Haas, S. L., 635
 Hadden D., 669
 Hansen, W. 645
 Harman, N. B. 678
 Harris, W. H., 643
 Hartong, A., 636
 Heath, I. C., 679
 Heilmann, F. 645
 Heliosha, F. 657
 Hilde, A. 625
 Hira, E., 668
 Hesse, E., 647
 Hewitson, J. T. 675
 Heyter H., 647
 Holmann, O., 657
 Holmgren, A. F. 65
 Holland, C. T. 623, 640
 Holmgren, G., 668
 Horand 683
 Iglaas S. 683
 Imson, M., 644
 Ijla, A. J. 670
 Jacobs, L., 67
 Jack, W. R. 650
 Jacques, P., 664
 Jager A. B., 668
 Jensen, M., 642
 Jelliet, H. 651
 Johnston, O. C. 608
 Kaefer, N. 69
 Kaho, L. M., 607
 Kawakaya, M., 660
 Kelly 65
 Kingman, R. A., 660
 Klein, H., 655
 Kocher, 645
 Koebl, H., 629
 Korte W. 628
 Kosowski, B., 597
 Krabbel, M., 639
 Krampla, 682
 Kracke, A. 66
 Krüger 667
 Kimmell H., 675
 Kottner, H. 645
 Ladinski, L. J. 660
 Lady, M., 632
 Lampé, 639
 Lange, 650
 Langen, 653
 Laplace, E. 63
 Larran-Barlow W. S. 649
 Le Filatre, G. 600
 Légaré, 678, 674
 Lenk, R., 630
 Leporsky 620
 Len, A., 666
 Lorenz, H. E. 620
 Lovett, R. W. 64
 Lucas, W. P., 640
 Lockett, W. H. 609
 Macabruni, F., 668
 Machte, T. J., 646
 Mangra, V. F., 604
 Marschke, H., 653
 M. Cruz, T. 673
 M. Nee J. W., 660
 Morestin, M. H. 609
 Mowret, J. 69, 68
 Neel, 64
 Nood J. H. 668
 Ninkar A. 604
 Ninkar H. 604
 Norrie L., 63
 O'Brien R. A., 647
 Osgood, R. B. 640
 Ostland, J. H., 624
 Pankow 66
 Papp, 67 67
 Paravicchio, G. 63
 Paterson, H. J. 626
 Paul, N. 635
 Penn, M. 670
 Peterson, 634
 Peterson, R., 662 664
 Petroff, N. N. 622
 Plabier G. E. 628, 657
 Plakosa, A. 632 633
 Pirie, A. H., 665
 Polak, J., 664
 Polano, 667
 Polanoff, A. 633
 Preysing, 607
 Pusey 630
 Rasmowsky W. J. 605
 Rhee, E. 605
 Radion, J. 636
 Rick, A., 644
 Robertson, E. N. 678
 Rosenthal, L. B., 661
 Roogy A. F. 666
 Rooney O. 617
 Roy D. 679
 Rosakova-Swovitch, A. 634
 Sahh 646
 Seabernman, 649
 Schwanda, M., 639
 Schlimpert, S. 600
 Schottlander, J. 660
 Schwarz, 667
 Scott, G. D., 673
 Shannagh, G. E., 680
 Stewart, W., 658
 Skinner, E. H. 624
 Smith, G. M. 644
 Smith, P. 679
 Speed, K., 637
 Spryer, J. B., 628
 Stranski, W. W. 645
 Stände C. 665
 Stendell, W. 607
 Stierlin, 631
 Stöckel, A., 642
 Semmes, J. E. 625
 Sweeney, J. T. 654
 Talbot, 634
 Thompson, W. M., 667
 Thomas, J. 67
 Tschandorf, 628
 Truell, A. 638
 Truller T. 600
 Uleko-Stragow 655
 Van der Scheer W. M. 635
 Van Slyke, 647
 Vincent, W. O. 670
 Vlach, 65
 Von Behring, E., 646
 Von Hlyk, O., 673
 Von Lang, 604
 Von Wittinghausen, 622
 Wachter, F., 634
 Wolf, G. C., 643
 Weiss, R., 639
 Weissmann, O., 63
 Werner 664
 Wilson, L. B., 67
 Wolf, W. 651
 Wolf, R., 665
 Zagrebac, 654
 Ziemann, B. F. 640
 Zink E. G. 664

TABLE OF CONTENTS

I. IMPORTANT ANNOUNCEMENT A NEW DEPARTMENT—RADIOLOGY	xli
II. AUTHORS	li
III. INDEX OF ABSTRACTS OF CURRENT LITERATURE	lii
IV. ABSTRACTS OF CURRENT LITERATURE	597-685
V. BIBLIOGRAPHY OF CURRENT LITERATURE	686-710
VI. VOLUME INDEX 1. SUBJECT MATTER. 2. BIBLIOGRAPHY 3. AUTHORS.	

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

Aseptic and Antiseptic Surgery	
KOSLOVSKI, B. Alcohol Operating Gloves	597
Anesthetics	
BURTON, W. Dosimetric Method of Administering Chloroform	597
DESCARPENTIERE, M. General Anesthesia by Intramuscular Injections of Ether. New Anesthesia Apparatus Particularly for Etherization Based upon the Principles Derived from the Latter	598
GW. DODGE, J. T. Oil Ether an Attempt to Abolish Inhalation Anesthesia	599
GAILLAUD, E. Prolonged General Anesthesia with Ethyl Chloride	599
SCHLIMMER, S. Sacral Anesthesia	600
TUFFIER, T. New Methods in Spinal Anesthesia	600
LE FELLIAIRE. General Analgesia by Cocaine Anesthesia of the Lumbo-Sacral Roots	600
B. VINCIG, F. Paralysis of the Phrenic Nerve after Plexus Anesthesia	600
GEORGE, Narcosis. New Hamamelis Local Anesthetic	60
Surgical Instruments and Apparatus	
CONNELL, K. An Apparatus (Anesthetometer) for Measuring and Mixing Anesthetics and Other Vapors and Gases	601

SURGERY OF THE HEAD AND NECK

Head	
KARL, L. M. Congenital Bilateral Fistula of the Lower Lip	60
COHEN, F. The Treatment of Fractures of the Mandible	602
VON LING, K. Suppurations of the Frontal Sinuses	604
MINTZ, H., AND NISSEN, A. On the Treatment of Fractures of the Petrous Portion of the Temporal Bone	604
MANGES, W. F. Findings in Obscure Head Lesions	604
RASUMOVSKI, V. J. The Question of Surgical Treatment of Cortical, Traumatic or Non-Traumatic, Epilepsy	605
KIRBY, L. Autoplastic F. Transplantation for Defects in the Dura and the Brain	605

LOCATELLI, W. H. Air in the Ventricles of the Brain Following Fracture of the Skull Report of Case	605
BRUNER. The Treatment of Tumors of the Brain and the Indications for Operation	606
LEAL, A. Acromegaly	606
STEWART, W. The Comparative Anatomy and Histology of the Hypophysis Cerebri	607
ATKINSON, A. Experimental Compression of the Hypophysis	607
PRESTON, A. New Method of Operating upon the Hypophysis	607
HOLMES, G. Operations on the Hypophysis by the Nasal Route	608
JONES, G. C. The Radiology of the Pituitary Body in Epilepsy and Pituitary Disorders	608
Neck	
NACOLI, J. H. The Avoidance of Ugly Scar Deformities in the Operative Treatment of Cervical Lymphadenitis	608
MORRIS, M. H. The Excision of the Groups of Cervical Lymph Glands in Cancers of the Mouth and of the Pharynx	609
GRAHAM, A. Tumors of the Carotid Body with Report of Two Cases	610
GENERAL, P. A Contribution to the Surgery of the Neck. Is Unilateral Resection of the Internal Jugular and Pneumogastric Harkness	610
EDMONDS, W. Thyroid	610
BUSCH. Pathological Changes of the Thyroid Gland in Syphilis	610
KRECKE, A. The Effect of Thyroidectomy on Thyroid Affections	610
WILSON, L. B. Notes on the Pathology of Simple and Emphysematous Goiter	610
ROBERT, G., AND CLUETT, J. Lesions of the Thyroid in Basedow's Disease	610

SURGERY OF THE CHEST

Chest Wall and Breast	
FRANK, G. E. The Treatment of Recurrences and Metastases from Carcinoma of the Breast	611
GOLEK. Penetrating I. Jones of the Chest and Abdomen	611

- PIORAT, A. Menstruation in the Treatment of Hemorrhagic Metropathies and Myomas 653
- BERKOWITZ, F. W. Uterine Sclerosis, Arteriosclerosis Uteri, and Its Relation to Uterine Hemorrhage 654
- ZIEGLER, C. Chronic Parametritis and Displacement 654
- REBOULOV, S. OSTRICH, A. A. Med and Mineral Baths During Menstruation 654
- SWENBY, T. T. Leukoplakia Uteri 654
- RITCK, A. The Indications for and Technique of Defund the Uteri 654
- Adnexal and Peritoneal Conditions**
- HELMERS, F. The Local Secretion of the Ovaries and Its Relation to the Lymphocytes 655
- KLOSA, H. A Case of Sarcoma Developing from the Ovary with Metastases in the Great Omentum 655
- ULIANO-STROGOMOV. Carcinomatous Degeneration of Ovarian Cysts 655
- BLANCH. The Removal of Blood from the Peritoneal Cavity Following Rupture of the Uteri 655
- ILIA, S. W. Affections of the Adnexa Inflammations and Tubal Pregnancy 655
- External Genitalia**
- BURRY, O. Vaginal Bacteria and Endogenous Infection 656
- JACK, W. R. Vaginal Therapy in the Treatment of Gonorrheal Vaginitis 656
- HORMAY, O. The Iodine Treatment of Gonorrhea in the Female 657
- Miscellaneous**
- CELLER, T. S. Address in Gynecology 657
- FRANKS, G. E. Roentgenotherapy in Gynecology 657
- HENRIOT, F. The Cystoscopic Diagnosis of Uterine Calculi and the Removal of It by the Vaginal Route 657
- SCOTT, J. B. The Modern Diagnosis and Treatment of Gynecological and Obstetrical Patients with Syphilis 658
- SEWELL, W. Bacteriological Control of Aseptic Minor Gynecological Operations 658
- JACK, H. The Surgical Treatment of Pile Thrombosis of Septic Origin 658
- LAMONT. Rhesus Disease and the Genital Organs 659
- GEORGE, W. H. Precocious Menstruation 659

OBSTETRICS

- Pregnancy and Its Complications**
- LARSEN, L. J. The Placental Area in the Induction of the Uterus, Fetus, and Early Signs of Uterine Pregnancy 660
- SCHOTT, F. J. The Determination of the Duration of Pregnancy on the Basis of Histological Placental Findings, and the Possible Practical Utility of These Findings. A Reply. Peters 660
- GAMBLISTOFF, S. A. Nitrogen Metabolism During Pregnancy 660
- MCKIN, J. W. The Cholesterol Content of the Bile During Pregnancy 660
- KIRBY, R. A. The Perinatal Counting of Pregnancy 660
- ROSENTHAL, L. B. Post-Ductal Arteries: Report of a Case Complicated by Pregnancy 660
- PETER. The Frequency and Significance of Cardiac Disease during Pregnancy 660
- DVOR, E. P. The Surgical Treatment of Bacillary Colic Complicated by Concomitant Pregnancy: with Report of Cases 660
- EVOLINO, E. Ectopic Pregnancy in the Ovarian Ligament: Contributions to the Anatomical Diagnosis of Advanced Cases 660
- BALLET, J. F. Cervical Section in Hysterectomy in Cases of Pouch Infection 660
- PETERSON, R. The Indications for Abdominal Cervical Section 660
- BLOOM, J. F. Two Uterine Cases of Ectopic Pregnancy; One Triplet 661
- Labour and Its Complications**
- GALLAGHER, A. E. Prolonged Prolapsed Parturition due to Disengagement of the Disproportion Head 661
- BROCK, W. C. M. Delivery as Total Paralysis of the Body 661
- Puerperium and Its Complications**
- WELLS, A. Case of Puerperal Tetanus with Recovery 661
- PETERSON, R. Empyema of the Uterus as a Method of Treatment of Puerperal Pyelitis 661
- ZIEGLER, L. G. The Medical versus the Surgical Treatment of Puerperal Lactosmia 661
- POWELL, J. On the Management of the Laceration of the Perineum in Post-Partum and Post-Partal Infection 661
- S. DE C. Puerperal Parity Post-Partum 661
- Miscellaneous**
- WOLFE, R. Fetal Hormones 661
- ROBERT, F. F. The Use of Fetal Serum to Cause the Onset of Labor 661
- DISTICH. Intra-uterine Rupture of the Fetal Liver 661
- ANASTAS, F. L. Care of the Umbilical Stump 661
- KARL. The Care of the Nipple during Pregnancy 661
- D. H. C. The Clinical Significance of the Urine in Pregnancy 661
- FERRELL, W. M. The Influence of the Thyroid Gland in Pregnancy and Lactation 661
- PETER. The Biological Diagnosis of Pregnancy 661
- SCHEWART. The Serodiagnosis of Pregnancy 661
- MARCOU, M. F. The Applicability of Abderhalden Reaction for the Serum Diagnosis of Pregnancy 661
- HEER, L. A Case of Rupture of the Uterus Following the Administration of Mithram 661
- JACKSON, A. S. Gonorrhea in Relation to Pregnancy and the Puerperal Period 661

GENITO URINARY SURGERY

Kidney and Ureter		
CONRARD, O. I. The Physiology of Kidney Secretion	669	
CARONJEW, S. P. The Radiographical Examination of the Kidneys	669	
KAWABOTE, M. Anatomical Changes in the Kidney after Ligation of the Ureter	669	
HANDERS, D. Bacteriology of the Urine in Relation to Movable Kidney	669	
VINCIGU, W. G. An Unusual Case of Renal Hematuria Unilateral Chronic Hemorrhagic Nephritis, Decapsulation Apparent Cure Recurrence Bilateral Involvement Decapsulation of Both Kidneys Six Years Later	670	
PRIMA, M. On the Significance of Renal Hematuria Immediately Following Nephrectomy for Tuberculous	670	
LIJIN, A. J. The Question of Ascending Infection of the Kidney and the Prevention of the Same by Implantation of the Ureters into the Bowel	670	
CONRARD, O. I. Unilateral Septic Infection of the Kidneys	67	
PARRY, T. The Localization of Renal Tuberculosis by Radiography	671	
THOMSON, J. The Infection of the Urinary Tract in Children by the Colon Bacillus	67	
GLYNN, E., and HENNINGSON, J. T. Adrenal Hypernephroma in the Adult Female Associated with Male Secondary Characters	67	
JACQUES, L. Pyelography	67	
LEICHT AND PARRY. The Technique and Accidents of Pyelography	67	
VON ILIUS, G. Experiences in Renal Surgery	671	
GIBSON, J. H. The Technique of Nephro-Pyelo- and Ureterolithotomy	673	
BACHMANN, R. A Contribution to the Functional Diagnosis of the Kidney	673	
SCOTT, G. D. Hydrocephrosis Produced by Experimental Ureteral Obstruction	673	
Bladder, Urethra, and Penis		
LEICHT. Foreign Bodies in the Bladder and Their Treatment	674	
BUTLER, H. G. The Relief of Vesical Obstruction in Selected Cases	674	
LEICHT. The Electro-Coagulation of Tumors of the Bladder	674	
FRANCOIS, J. Transformation of Cystitis into Glandular Cystitis	674	
Genital Organs		
EGGELS, L. S. Epididymotomy the Radical Operative Treatment of Epididymitis	675	
MCCREA. Remote Effects of Lesions of the Prostate and Deep Urethra	675	
KITCHEN, H. The Diagnosis and Treatment of Early Malignant Disease of the Prostate	675	
DRAVER, J. B. Prostatectomy	676	
CABOT, H. Suprapubic Prostatectomy	677	
D., G. H. A Modified Drainage for Suprapubic Prostatectomy	677	

SURGERY OF THE EYE AND EAR

Eye		
ROBERTSON, E. N. The Proven Approved Methods of Treatment of Obstructions to the Lacrimo-Nasal Duct	678	
COATS, G. Infarction of the Posterior Ciliary Arteries	678	
HALL, V. B. The Results of the First Hundred Squint Cases Operated Upon by the New Method of Subconjunctival Reefing and Advancement with Lengthening of the Antagonist here Necessary	678	
BUTLER, A. E. The Cause and Treatment of Concomitant Squint	679	
HEATH, F. C. Sympathetic Ophthalmia after Recovery	679	
SWIFT, P. Glaucoma Operations	679	
ROY, D. Observations on Operations for Glaucoma	679	
Ear		
DEVINE, E. B. T. Cases of Loss of Caloric Vestibular Reaction, with Operative Findings	679	
SHAW, W. G. E. When to Operate on the Labyrinth in Labyrinth Infection Secondary to Purulent Otitis Media	680	
BOTTE, R. The Trephination of the Labyrinth for Vertigo and Buzzing in the Ear	680	
BOTTE, R. Anatomical Preparations to Illustrate Trephining of the Labyrinth	68	
MOORE, J. The Surgical Anatomy of the Mastoid	68	
BAXTER, W. S. Management of Mastoid Wounds	68	
KRAMPTON. The Dissection of Ligature the Jugular Vein in Otology and the Possibility of Preventing Them	68	
JACQUES, P. Pharyngeal Drainage of Cranial Suppurations of Orogenous Origin	68	

SURGERY OF THE NOSE, THROAT AND MOUTH

MURKIN, H. Pathology and Diagnosis of Malocclusion Diseases of the Nose and Nasopharynx	653	COWI, J. L. Indications and Relative Value of Turbinotomy and Turbinectomy	684
ROUNT, AND HILL AND The Temporal Resection of the Superior Maxilla for Oxyphleg Chondroma of the Nasopharynx	653	DUNN, P. R. W. The Pathology of the Various Acute Inflammations of the Throat and Neck Including Acute Adenitis, Pharyngitis, Epiglottitis, and Angina Ludovici but Excluding Diphtheria	674
LEWIS, S. Some Account of the Intranasal Transplants of Nasal Tissues	653	BROWN, R. The Best Method for Fixing the Larynx	685
BELL, J. C. Removal of Abscess by Direct Inspection	653		

BIBLIOGRAPHY

GENERAL SURGERY

SURGICAL TECHNIQUE	
Operative Surgery and Technique	650
Aseptic and Antiseptic Surgery	650
Anesthetics	650
Surgical Instruments and Apparatus	650

SURGERY OF THE HEAD AND NECK

Head
Neck

SURGERY OF THE CHEST

Chest Wall and Breast	650
Trachea and Lungs	650
Heart and Vascular System	650
Thyroid and Esophagus	650
Miscellaneous	650

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum	650
Gastro-Intestinal Tract	650
Liver, Pancreas, and Spleen	650
Miscellaneous	650

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons, General Conditions Commonly Found in the Extremities	650
Fractures and Dislocations	650
Surgery of the Bones, Joints, etc.	650
Orthopedics in General	650

SURGERY OF THE SPINAL COLUMN AND CORD

SURGERY OF THE NERVOUS SYSTEM

DISEASES OF SURGERY OF THE SKIN, FASCIA, UPPER LIMBS

MISCELLANEOUS	
Chronic Eruptions—Tumors, Ulcers, Abscesses, etc.	650
Sera, Vaccines, and Ferments	650
Blood	650
Blood and Lymph Vessels	650
Poisons	650
Surgical Therapeutics	650
Electrology	650
Military and Naval Surgery	650

GYNECOLOGY

Uterus	700
Adnexal and Peritoneal Conditions	700
External Genitalia	700
Miscellaneous	700

OBSTETRICS

Pregnancy and Its Complications	700
Labor and Its Complications	700
Puerperium and Its Complications	700
Miscellaneous	700

GENITO-URINARY SURGERY

Kidney and Ureter	700
Bladder, Urethra, and Penis	700
Genital Organs	700
Miscellaneous	700

SURGERY OF THE EYE AND EAR

Eye	700
Ear	700

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose, Throat, and Mouth	700
-------------------------	-----

CONSULTING EDITORIAL STAFF

GENERAL SURGERY—Continued

Stuart McGuire Lewis B. McMantry Willy Meyer James E. Moore Fred T. Murphy John B. Murphy
 James M. Neff Edward H. Nichols A. J. Ochsmier Roswell Park Charles H. Peck J. R. Pennington
 S. C. Phommner Charles A. Powers Joseph Ranschoff H. M. Richter Emmet Rindorf H. A. Royster
 W. E. Schroeder Charles L. Scudder M. G. Seelig E. J. Sena John E. Summers James E. Thompson
 Herman Tcholaka George Tully Vaughan John R. Wathen. CANADA E. A. Archibald J. E. Armstrong
 H. A. Bruce Irving J. Cameron Jasper Halpenny J. Alex. Hutchison Francis J. Sheppard F. N. Starr
 T. D. Walker ENGLAND H. Bruntton Angus Arthur H. Barker W. Watson Chayne W. Sampson Handley
 W. Ardenhot Lane G. H. Makins Robert Milne B. G. A. Moyallhas Rnashten Parker Harold J. Stiles
 Gordon Taylor

GYNECOLOGY AND OBSTETRICS

AMERICA Frank T. Andrews Brook M. Anspach W. E. Ashton J. M. Baldy Channing W. Barrett
 Herman J. Beldit J. Wesley Boyce LeRoy Brown Henry T. Byford John G. Clark Edwin B. Cragin
 Thomas S. Cullen Edward P. Davis Joseph B. D. Lee Robert L. Dickinson W. A. Newman Dawland E. C.
 Dudley Hugo Ehrenfest C. S. Elder Palmer Findley Henry D. Fry George Gailhorn J. Middle Goff
 Seth C. Gordon Barton C. Hirst Joseph T. Johnson Howard A. Kelly Albert F. A. King Florian Krug
 L. J. Ladinski H. F. Lewis Frank W. Lynch Walter P. Manton James W. Markoe E. E. Montgomery
 Henry P. Newman George H. Nobl Charles E. Paddock Charles B. Peurose Reuben Peterson John O.
 Polak Wm. M. Polk Edward Reynolds Emil Rhee John A. Sampson F. F. Simpson Richard R. Smith
 William S. Stone H. M. Stone William E. Scuddiford Frederick J. Taussig Howard C. Taylor Hiram
 N. Vaseberg W. F. B. Wakefield George G. Ward, Jr. William H. W. then J. Whitbridge Williams.
 CANADA: W. W. Chipman William Gardner F. W. Marlow E. C. McIlwraith V. P. Watson A. H.
 Wright. ENGLAND Russell Andrews Thomas W. Edes W. R. Fethergill T. B. Hafler Thomas Wilson.
 SCOTLAND William Fordey J. M. Munro Kerr. IRELAND Henry JaBett Hastings Tweedy
 AUSTRALIA Ralph Worrall. SOUTH AFRICA: H. Tempel Murrell. INDIA: Kadamath Das.

GENITO-URINARY SURGERY

AMERICA Wm. L. Baum Wm. T. Beffield Joseph L. Beckm L. W. Bremerman Hugh Cabot John
 R. Craik Charles H. Chatwood John H. Cunningham J. S. Edeensadt Ramon Gutierrez Francis R.
 Hagner Robert Herbet Edward L. Keyes, J. Gustav Koflacher F. Krolmal Bransford Lewis G. Frank
 Lydian Oranville MacGowan L. E. Schmidt J. Bentley Squier B. A. Thomas Wm. H. Wishard Hugh
 H. Young Joseph Zehner. ENGLAND T. W. Thomson Walker John G. Pardoe. INDIA: Mrigendralal Mitra.

ORTHOPEDIC SURGERY

AMERICA E. C. Abbott Nathaniel Allison W. B. Baer Gwyllyn G. Davis Albert H. Fredberg Arthur
 J. Giffette Virgil P. Gilmey Joel E. Goldchwall G. W. Irving Robert W. Lovett George R. Packard John
 L. Porter John Ridlon Edwin W. Ryerson Harry M. Sherman David Silver H. L. Taylor H. Augustus
 Wilson James E. Young. CANADA A. Mackenzie Forbes Herbert P. H. Galloway Clarence L. Starr
 ENGLAND Robert James A. H. Tubby George A. Wright

RADIOLOGY

Engene W. Caldwell Russell D. Carman L. Gregory Cole Preston M. Hickey Henry Hirst George
 C. Johnston Sidney Lang George E. Pfahler Holms R. Potter CANADA: Samuel Cunningham Alexander
 Howard.

SURGERY OF THE EYE

AMERICA C. H. Beard K. V. L. Brown H. D. Burns Vard H. Hales Edward Jackson W. P. Marple
 William Campbell Posey Brown Posey Robert L. Randolph John E. Weeks Cassius D. Westcott William
 H. Wilder Casey A. Wood Hiram Woods. ENGLAND J. E. Lawford W. T. Holmes Spicer. SCOTLAND:
 George A. Barry A. Maitland Ramsey

INTERNATIONAL ABSTRACT OF SURGERY

CONSULTING EDITORIAL STAFF—Continued

SURGERY OF THE EAR

AMERICA Ewing W Day Max A. Goldsztein J. J. McKernon Norval H. Pierce E. MacCaen Smith.
CANADA H. B. Blissett ENGLAND: A. H. Chasle SCOTLAND: A. Logan Turner. IRELAND:
Robert H. Woods.

SURGERY OF THE NOSE AND THROAT

AMERICA Joseph C. Beck T. Melville Hardie Thomas J. Harris Christian R. Holman E. Fletcher
Ingals Chevalier Jackson John N. MacKinnon G. Hudson Makara George Paul Marquis John Edwin
Rhodes AUSTRALIA A. J. Brady A. L. Kenney INDIA F. O'Keefe

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

DEAN D. LEWIS—General Surgery
CAREY CULBERTSON and CHARLES B. REED
—Gynecology and Obstetrics
LOUIS E. SCHMIDT—Genito-Urinary Surgery
JOHN L. PORTER—Orthopedic Surgery

HOLLIS E. POTTER—Radiology
WILLIAM H. WILDER—Surgery of the Eye
NORVAL H. PIERCE—Surgery of the Ear
T. MELVILLE HARDIE—Surgery of the Nose
and Throat

GENERAL SURGERY

AMERICA Carrell W. Allen L. E. Armstrong Donald C. Balfour H. R. Basinger George E. Bellby
E. M. Bernheim Barney Brooks Walter H. Buhig J. P. Carnett Otto Casti Philippe M. Chase
James F. Churchill Landore Cohn Karl Connell Lewis B. Crawford V. C. D. vid N. than S. Davis III
D. L. Deyard L. G. Dwyer Frederick G. Dyas A. B. Eustace Ellis Fleckel Herman B. Genssler Donald
C. Girdles Torr Wagner Harmer Christian D. Hauch James P. Henderson Charles Gordon Heyd
Harold P. Kohn Leaden H. Landry Felix A. Larue Halsey B. Leder Urban Mason Wm. Carpenter
MacCarty B. F. McGrath R. W. McKealy Alfred H. Neekrose Matthew W. Pickard Maurice C. Pincus
Eugene H. Pool H. A. Potts Martin B. R. King E. C. Riebel Floyd R. R. M. J. Bellert J. H. Ellis
Harry G. Sloan John Smythe Carl R. Steinhilber Lister H. Tolchick Henry J. Van den Berg W. M. Williams
Ezra M. Williams Erwin P. Zetler ENGLAND James E. Adams Percival Cole Arthur Edmonds
I. H. Houghton Robert E. Kelly William Gilliat B. C. Mayberry Eric P. Gerald T. B. Legg Felix Reed
E. G. Schlenker B. Sangster Semonds Harold Upcott O. O. Williams SCOTLAND John Fraser
A. P. Milne D. Henry Wad D. P. D. Wilkie

GYNECOLOGY AND OBSTETRICS

AMERICA E. W. Bandler A. C. Beck Daniel L. Borden D. H. Boyd Anna M. Brownworth E. A.
Bullard Eugene Cary W. H. Cary Sidney A. Chaffant Edward L. Cornell A. H. Curtis A. Henry Dunn
F. C. Esselbrenner Lillian K. P. Farrar W. B. Fehring Howard O. Garwood Mastic J. Orighi Luke R.
Goldsmith M. Spratt Hensley T. Leecraft Hein D. E. Hulse John C. Hurst F. C. Irving L. A. Jahnke
Norman L. Kalpe Georg W. Kosmak H. W. Kohnsayer Julius Lackner Herman Leber Rabel Lofel
Donald Macomber Harry B. Matthews L. P. McHugh Arthur A. Morse Ross McPherson George W.
Oosterlidge Albert E. Pagen Georg W. Partridge Wm. D. Phillips Reginald M. Rawls L. W. Rorer
Heddox Schiller A. H. Schmidt Henry Schmitt Edward Schumann Emil Schwarz J. M. Stevenson
Camille J. Stamen Arnold Starnford George de Tarasowsky S. B. Tyron Marie L. White P. F. Williams
R. E. Wilson CANADA James R. Goodall H. M. Little ENGLAND Harold Chapple Harold Clifford
F. H. Lacey W. Fletcher Shaw Clifford White, SCOTLAND H. Leth Murray J. H. Widdett

ABSTRACT EDITORIAL STAFF—Continued

GENITO-URINARY SURGERY

AMERICA: Charles E. Barnett J D Barney B. S. Barringer Horace Binney Theodore Drazdowitz H. A. Fowler F E. Gardner Louis Gross Thomas C. Holloway H. G. Hamer I. S. Kell H. A. Kraus Herman L. Kretschmer Martin Krotosky Victor D. Leysnasse William E. Lower Harvey A. Moore Stirling W. Moorhead A. Nelson C. O'Crowley R. F. O'Neill H. D. Orr G. M. Peterkin C. D. Pickrell H. J. Polk y Jaroslav Radda S. Wm. Schapiro George G. Smith A. C. Stokes L. L. Ten Broeck H. W. E. Walther Carl Lewis Wheeler ENGLAND: J. Swift Joly Sidney G. M. McDonald.

ORTHOPEDIC SURGERY

AMERICA: Charles A. Andrews A. C. Bachmeyer George I. Baumann Georg E. Bennett Howard E. Bicker Lloyd T. Brown C. Herman Bucholz C. C. Chatterton W. A. Clark Robert B. Coffield Alex R. Colvin Arthur J. Davidson Frank D. Dickson Albert Ekrefried William G. Erving F. J. Geeslen M. S. Henderson Ph. Hoffman C. M. Jacobs S. F. Jones F. C. Kidner F. W. Lamb Prescott LeBrenton Paul B. Magnuson George J. McChesney H. W. Orr Archer O'Reilly H. A. Pingree W. W. Plummer Robert O. Ritter J. W. Sever John J. Shaw Charles A. Ston Paul P. Swett H. B. Thomas James O. Wallace James T. Watkins C. E. Wells DeForest P. Willard H. W. Wilcox. CANADA: D. Gordon Evans. ENGLAND: Howard Buck E. Rock Carling Naughton Dunn E. Lansing Evans W. H. Hey John Marley T. P. McMurray Charles Roberts G. D. Telford.

RADIOLOGY

David R. Bowen John Burks James T. Case William Evans Amedee Granger G. W. Grier Adolph Hartung Arthur Holding Leopold Jasch Albert Miller Ed. H. Skinner David C. Strauss Frances E. Turley J. D. Zofick

SURGERY OF THE EYE

AMERICA: E. W. Alexander N. M. Brinkerhoff C. G. Darling T. J. Dineley J. B. Ellis E. R. Fowler Lewis J. Goldbach Harry B. Gradi J. Milton Griscom E. F. Krug Francis Lane Walter W. Watson ENGLAND: F. J. Cunningham M. L. Hepburn Foster Moore. SCOTLAND: John Pearson Arthur Hy H. Bacheir Ramsey H. Traquair James A. Wilson.

SURGERY OF THE EAR

AMERICA: H. Beatti Brown J. E. Fletcher E. B. Fowler A. Spencer Kaufman Robert L. Loughren W. H. Theobald T. C. Whittier. CANADA: H. W. Jamieson. ENGLAND: G. J. Jenkins. SCOTLAND: J. S. Fraser IRELAND: T. O. Graham.

SURGERY OF THE NOSE AND THROAT

AMERICA: George M. Coates Carl Fischer R. Clyd Lynch E. Ben J. Patterson. AUSTRALIA: V. Munro. INDIA: John T. Murphy

COLLABORATING EDITORIAL STAFF
FOR FRANCE AND GERMANY

Journal de Chirurgie B. Cuneo J. Dumont A. Gosset P. Lacene Ch. Lenormant R. Proust
Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete A. Bier A. Frh. von Eiselsberg
C. Franz O. Hildebrand A. Köhler E. Küster F. de Quervain V. Schmieden
Zentralblatt für die gesamte Gynäkologie und Geburtshilfe sowie deren Grenzgebiete: O. Beuttnier
A. Döderlein Ph. Jung B. Krönig C. Menge O. Pankow E. Runge E. Wertheim
W. Langemeister

IMPORTANT ANNOUNCEMENT
A NEW DEPARTMENT—RADIOLOGY

Probably in no other field during the past ten years has medical science shown greater advances, both in improvement of technique and in breadth of scope of application than it has in the various departments of radiology, electrolysis, thorium therapy, and in the invention and application of new electrical appliances for diagnostic and therapeutic purposes.

Realizing that this science has become an indispensable factor to every surgeon both as an aid to diagnosis and in treatment, and recognizing the vast amount of important literature which is now appearing on the subject, the *INTERNATIONAL ABSTRACT OF SURGERY* has established a new department to be devoted to this specialty under the direction of a capable editorial staff.

In the future all abstracts which deal with electrolysis in a general sense will be found in a section devoted to this science, while those which have a regional application will be classified according to our established anatomical arrangement.

In this number will be found abstracts of many of the important papers read at the meeting of the American Röntgen Ray Society held in Boston in October. Other abstracts will appear in succeeding issues.

INTERNATIONAL ABSTRACT OF SURGERY

DECEMBER 1913

ABSTRACTS OF CURRENT LITERATURE

GENERAL SURGERY

SURGICAL TECHNIQUE

SEPTIC AND ANTISEPTIC SURGERY

Kozłowski, B. Alcohol Operating Gloves (Alkohol operationshandschuhe). *Zentralbl. f. Ch.* 41: 38. By Zentralbl. f. d. ges. Chir. (reusgeb.)

In view of the fact that alcohol hardens the skin and fixates cutaneous germs, the author uses his operations sterile thread gloves soaked in alcohol and put on moist, never the disinfected hand. He has never noted any injury to the skin with hands even after many hours of contact with the alcohol, nor any injury to the tissue in the operative field. The gloves are frequently moistened again with alcohol during the operation, replaced by fresh ones soaked in alcohol.

ANÆSTHETICS

Buxton, W. A. Doelmer's Method of Administering Chloroform. *The Lancet* (Long. Med. Lond.) 9: 3, 1908. By Surg. General & Obst.

The principles involved in this method are as follows:

1. Chloroform acts upon the tissues in proportion to the strength of its vapor in mixture with air or oxygen.

2. The action of chloroform is progressive; the narcosis becoming deeper when the chloroform is given over a long period in constant dilution.

3. Different body tissues are affected in similar, though in different degrees. Percentages of vapor below 1 per cent do not produce anesthesia but interfere with the temperature and metabolism. Higher percentages induce anesthesia, lower blood pressure, and interfere with respiration.

4. Chloroform is an ultimate protoplasm poison.

5. Chloroform reacts decidedly more vigorously upon pathological tissues and in abnormal conditions such as asphyxia, anemia, fatty or degenerative changes in tissue cells, etc.

6. A definite percentage of vapor will produce anesthesia, but greater amount produces deeper narcosis which interferes with vital functions. The amount of chloroform necessary to maintain steady level of anesthesia varies inversely with the length of time it is inhaled.

7. The amount of vapor required to induce and maintain anesthesia is less for individuals of impaired vitality and for children.

The extent to which chloroform passes from the system into the blood stream is impossible to gauge. The anesthetic in the tissue cells causes a lessening of ultimate cessation of bio-chemical function.

The interference being directly proportional to the percentage strength of the chloroform introduced. Weller has shown that nerve tissue first becomes paralyzed then loses its conductivity; a uniform result following known percentage strength of vapor.

The degree of haemolysis is difficult to estimate because the influence exerted by many factors in human beings is unknown. Chloroform causes fall of blood pressure, heart weakness, possibly due partly to dilatation and lessening of vasomotor control. These effects can be controlled by lessening the amount of chloroform given *pari passu* with the length of time that it is administered, providing surrounding conditions remain the same. The effect is influenced profoundly by asphyxia, hemorrhage or traumatic shock. Oxygen restrains the effect of chloroform upon the tissues, and normal blood protects them. A percentage of chloroform that will produce asphyxia in normal individual may be dangerous for one whose blood is vitiated by disease and especially by anemia.

It is agreed that double the anesthetic dose constitutes the lethal dose. Chloroform affects tissues in the following order: (1) nerve tissue, the highly differentiated first; (2) heart muscle; (3) striped

voluntary muscle and (4) involuntary muscle fibre.

Upon this fact anesthesia depends otherwise the production of unconsciousness would be impossible. The most highly differentiated part of the brain is first thrown out of function, then the lower ganglia are affected while blood pressure falls and respiratory functions become more limited. The myocardium is affected rapidly and early and soon loses its power of contracting. The normal reflex mechanism is so affected that abnormally severe inhibitions are elicited and metabolism may be profoundly influenced. From the foregoing the author believes that the effects of chloroform are due to the actual vapor strength rather than to the actual amount of drug used, not considering of course the result from toxic quantities. Therefore, the dosimetric system is advocated as a means of limiting the strength of the admixture used not only in inducing anesthesia but in maintaining it as the tissues become more and more under the influence of the drug in order to be sure that its effect is merely anesthetic in character and not toxic.

In the induction of anesthesia, it has been found that the organism will tolerate high percentage vapor if the strength is reached gradually while its sudden use results in collapse and even death. For a normal person it has been found that

strength of about 1 per cent will induce anesthesia, that less will cause sleep only and that more will embarrass the respiration and circulation. In spite of these facts, the average administrator experiments upon his patients, and his results depend upon his personal acumen as an experimenter. Failure is often certain because of his inability to estimate subtle tissue changes and to anticipate contingencies of shock and actual tissue injury. These considerations bear equally upon the period of maintenance when an overdose of chloroform may put the patient in a state of toxemia even though his life has never been in jeopardy during the administration.

There are three dosimetric methods: (1) the open method; (2) the administration of mixtures; (3) the administration by instruments which present the atmosphere of known strength or by inhalers which determine an admixture of chloroform and air the strength of which is known and can be varied by the operator with great accuracy. The open method is comparatively accurate but only in the hands of those with the utmost skill and experience and when disturbing factors such as variations in depth and frequency of respiration, room temperature, and air currents can be eliminated. With mixtures, the same objections hold true, and, in addition, it is impossible to obtain any accurate percentage value for the chloroform which is given off because of the difference in the boiling point of the ingredients.

Many mechanical inhalers are on the market—Bert's, Snow's, Clover's and the Roth Dräger apparatus—but all of these allow the 1 per cent

strength to be exceeded. The regulators of Dubois, Waller and Alcock are exact but bulky. The author has used chiefly the Vernon-Harcourt regulator and his experience has been that 1 per cent need not be exceeded. In very muscular and obese subjects rapid induction with nitrous oxide and ether preceded by gr. 1/100 of atropin has been serviceable. The author uses oxygen in order to maintain the vigor of the tissues and to lessen shock and prevent weeping when large areas are incised or debrided. When deep narcosis is necessary, a dosimetric inhaler enables the anesthetist to better control the higher percentages when he is working in the danger zone. Cyanosis is due not to the inhaler but to preventable complications which may arise with any method of giving chloroform. Nasal and mouth tubes are supplied with the common inhalers and the vapor may be inspired by Crile's method or can be propelled by a foot bellows.

After dosimetric administration the patient has normal color and there are few after-effects. After the old method, on the other hand, the patient is pale and drawn, he vomits and is in greater or less degree of collapse.

The controlling principle of this method, which the author considers the only safe means of administering the drug, is to gradually increase the percentage of chloroform vapor and, as soon as anesthesia is established, to lower it to the point where the intake equalizes the output from the lungs. No matter what changes may occur in the patient's breathing, safe strength—1 per cent—should not be exceeded, and even struggling does not call for a restriction of the supply.

E. K. ANASTOMO

Descarpentrie, M. General Anesthesia by Intramuscular Injections of Ether: New Anesthetic Apparatus, Particularly for Etherization, Based Upon the Principles Derived from the Latter (Anesthésie générale par les injections intramusculaires d'éther. Un nouvel appareil à anesthésie, en particulier à étherisation, basé sur les principes qui en découlent). *The International Congress Med. Lond., 1903, Aug.*

By Surg. Gynec. & Obst.

General anesthesia may be induced without danger by intramuscular injections of ether if it is given in successive small doses (about 5 cc) and injected slowly into large muscle masses or thick spongy tissues to limit the vaporization and keep the vapor under tension.

The best place is the gluteal muscles. The entire dosage varies according to the weight of the patient, about cubic centimeter to 1 kilogram of weight. There is little danger of giving too much. The first pain is keen but is very quickly over. After the anesthesia, the patient complains of feeling of heaviness in his legs. To avoid the initial pain, the anesthesia should be begun with few inhalations of ethyl chloride or chloroform. A few drops of chloroform may be given without any danger while the patient is anesthetized. This makes

the narcosis more profound and permits of the use of a smaller quantity of ether.

The method is simple. It greatly facilitates operations about the face and neck and dispenses with the necessity of having an anesthetist. It enables a surgeon to operate alone in emergency cases under general anesthesia. It differs from ordinary etherization in that by the ether vapor enters the blood without admixture of carbon dioxide and is warm (43°) when it enters the alveoli of the lungs.

The anesthesia apparatus described is constructed to carry out these principles. It gives rapid calm, no regular narcosis without pulmonary complications and contra-indications. It combats anesthetic shock in that it does not lower the patient's temperature. During the first ten minutes it raises the rectal temperature from two to five tenths of a degree.

The apparatus permits of obtaining the anesthetic mixture that is most favorable to cure. Some patients abhor the odor of ether in such cases anesthesia can be begun with a trace of ethyl chloride. The apparatus does not inhibit the exhalation of ether vapor in the operating and the risk of explosion. The author believes that a surgeon who works daily in ether soon becomes gradually fatigued and intoxicated with ether.

Guthrie J. T. Oil Ether an Attempt to Abolish Inhalation Anesthetics. *T. Internat. Cong. Med., Lond.* 93 Aug.

By Surg. Gynec. & Obst.

Experiments on animals, under the direct supervision of Prof. George Wallace of the Pharmacological Department of Bellevue Medical College are conducted for the purpose of studying the anesthetic value of ether when introduced in solution into the rectum. A 5 per cent solution of ether in normal saline solution was used first, about 500 cc being injected into the colon. It rapidly reduced the bulk, Guthrie's greatest employing oil instead of saline solution. Experiments under the supervision of Prof. Charles Baskerville, Director of the Department of Chemistry of the College of the City of New York, were then made to determine the relative rapidity with which the ether escaped from the oil in which it was dissolved, the solutions compared being of the same strength and subject to the same temperature. Cod liver oil, olive oil, neat-foot oil, carrol oil, paraffin (Russian mineral oil), milk, and cream were used. It was found that carrol oil parted with the ether in nearly one-fourth of the time that was required by the other substances.

Ten successful experiments were carried out upon dogs, with complete anesthesia and no alarming symptoms. The ether as given in solution in cotton-seed oil from 55 to 75 per cent the amount of ether injected being from 50 to 75 cc. The shortest time required for the establishment of surgical anesthesia was five minutes, the longest time fifty

minutes. The duration of the anesthesia after the ether injection was stopped averaged about one hour. In no case was there evidence of more than a mild irritation of the rectum following the ether injection, and such irritation passed off within twenty-four hours.

In the clinical experiments the oil-ether solutions, varying from 4 to 75 per cent, were employed. It was found that solutions of 75 per cent proved most satisfactory in both animal and human subjects. The most gratifying results were obtained from the use of 200 to 300 cc. of a mixture of 6 oz. of ether and oz. of oil. Anesthesia thus induced was ideal. Pulse and respiration were normal, there were no mucous riles, and no after-effects such as nausea or diarrhoea.

One of the underlying thoughts in developing oil ether anesthesia was to prevent certain dangers that attend intravenous anesthesia. The fact that the only apparatus needed is a small catheter and a funnel into which to pour the mixture is a strong argument in favor of this method. To the practitioner compelled to work alone it should be of inestimable benefit. On account of the gradual and rapid evaporation from the lungs it would appear to be at least a comparatively safe method of inducing anesthesia. Mucus and saliva are absent and the patient's lungs and stomach are spared.

The preparation of the patient is the same as for ether vapor anesthesia per rectum. A cathartic of castor oil is given the night preceding the operation and is followed in the morning by soap-suds enemas one hour apart, or until the return comes back clear. The patient is then allowed to rest for thirty to sixty minutes, when suppository containing the following substances is inserted. For adults 3/4 gr powdered opium and 5 gr chloroform; for children 1/4 gr powdered opium and 5 gr chloroform. One hour after the insertion of this suppository the oil-ether is introduced. It is injected slowly in order to avoid irritation or other untoward effects.

The author gives the histories of two perfect cases illustrative of the application of the method to the human subject. In each the anesthesia lasted forty-five minutes.

Both clinical and laboratory experimentation with the method is being continued, and reports will be published later.

Gaillard L. Prolonged General Anesthesia with Ethyl Chloride (*L'anesthésie générale prolongée au chlorure d'éthyle*). *T. Internat. Cong. Med., Lond.* 93 Aug. By Surg. Gynec. & Obst.

Ethyl chloride is very much superior to chloroform or ether for producing general anesthesia because it is less toxic.

However ethyl chloride anesthesia can be produced only by following certain rules that are given by the author and by using an apparatus that permits mixing it with definite dosage of ethyl chloride like another anesthetic and an abundant

supply of air or oxygen. For a ml. to or two the beginning of the anesthesia a few drops of chloroform should be given with the ethyl chloride. After that the ethyl chloride should be continued alone. The thoracic port five hundred and fifty-eight cases of anesthesia given with this apparatus (four hundred and fifty-three of which are prolonged anesthetics for various major operations (on the liver, brain, gynecological, etc.)) Not a single accident occurred. Anesthesia takes place rapidly — one or two minutes. The result is excellent because the organism is submitted to a minimum of intoxication.

Schlimpert: Sacral Anesthesia (Sakralanästhesie). *Deut. Med. Wochschr.* 6. 6. 1912. H. 24. 913.
B. Zentr. f. d. ges. Chir. (Gebrauch). (Gebrauch). d. Grenzgeb.

The results from low anesthesia in 4 cases or perfect — 54.4 per cent. In 1 per cent halation narrows — resorted to on account of the long duration of the operations. In 1 per cent certain motion of the chloroform had to be sed from the beginning. In 4 per cent the anesthesia (about) negative.

In 54 cases of high anesthesia the results were perfect — 46.5 per cent. Either chloroform had to be given on account of prolonged operation — 1 per cent. In 50 per cent the anesthesia was incomplete — 50 per cent negative. The only disturbing complication — blanching of the face — lasted for three hours and was treated by raising the blood pressure. The highest advantage — the absence of lateral compression — especially heads here.

The indication for the different forms of anesthesia follows. The low form of sacral anesthesia should be used for low operations, chloroform and ether for high operations of short duration, complicated appendectomies, lumbar anesthesia for high operation. In women with weak heart and for very fit women and high sacral anesthesia for all other cases.

T. Miller T.: New Methods in Spinal Anesthesia. *T. Internat. Cong. Med. Lond.* 3. Aug.
By Surg. Gynec. & Obs.

Extradural anesthesia, which is given up for time has been resumed. Injection is made into the sacro-coccygeal orifice the needle being introduced parallel with the axis of the canal, which generally makes an angle of 45° with the surface of the body. Stovaine and later novocaine have been used. Schlimpert gives, along with the latter, veronal, scopalamine, morphine, or scopalamine-morphine to produce anesthesia. The anesthesia lasts three quarters of an hour with the low injection, and from half to three quarters of an hour with the high injection. The accident occurring as a result of it are not grave. The technique is long and complicated and the results uncertain.

Intradural injections are either inferior or

medullary or superior (Jouinesco) between the first and second dorsal, and though seemingly dangerous, has given satisfactory statistics. At first cocaine was used, then stovaine then tropococaine and finally novocaine. The latter is now used by most operators who practice spinal anesthesia. All of these anesthetics are today used in combination with various substances.

Jouinesco uses strychnine with stovaine to avoid the accident attributed to the latter. The mortality varies — different set of statistics. The causes of death are often unknown. Spinal anesthesia is not indicated in very emotional subjects, in faint phobics, those suffering from medullary affection, and in operations which extend beyond the umbilicus.

Le Fillatre: General Anesthesia by Cocaine. Anesthesia of the Lumbo-Sacral Routes (Anesthésie générale par rachéococaïne). *T. Internat. Cong. Med. Lond.* Aug.
B. Surg. Gynec. & Obs.

Le Fillatre of Paris 12 years ago succeeded in obtaining constant anesthesia not only of the trunk and the upper limbs but also of the head and neck by giving the injection at the level of the first sacral vertebra. Having first evacuated the amount of the cephalorachidian fluid, he injected 10 ml. of solution of cocaine sterilized to 50°C. (thoroughly prepared and under the skin of the patient he gave milligrams of strychnine) 15 centigrams of part one. At the end of ten minutes after minutes total anesthesia of the head and the neck is obtained.

The duration of the anesthesia varies from half an hour to one hour for the head and the neck and from half an hour to three hours for the subumbilical region.

Sixty-four patients have produced two hundred and forty-eight anesthesias of the subumbilical region. Eighty-four have been for surgery of the neck and head.

Thirteen cases have produced thousands eight hundred and thirty-seven subumbilical or subumbilical anesthesia, many of which are on the same subject and he has never noted the least accident either immediate or late.

Lumbar puncture made at the end of the early-four hours show that the cephalorachidian fluid is normal.

Brunner F.: Paralysis of the Phrenic Nerve after Plexus Anesthesia. *Zur Frage der Phrenicallähmung nach Plexusanästhesie. Zentralbl. f. Chir.* 9. 1. 1912. B. Zentr. f. d. ges. Chir. u. L. Grenzgeb.

The thoracic report uses with a picture similar to the recently given in plexus anesthesia, but without preceding plexus anesthesia. In both cases a good operation was performed.

The first was that of a 60-year-old man whose appendix and left lobe of the thyroid were resected simultaneously under chloroform narcosis. Several

hours after the operation the patient complained of severe dyspnoea as if there were spasm of the diaphragm. The pulse was 8. There was polypnea and pain in the abdominal wound. When the dressings were changed no haemorrhage was found in the wound of the neck. In the morning normal breathing was resumed again.

The second case was bilateral resection performed for Basedow's disease, with bilateral anaesthesia according to Braun. Four hours after the operation the patient complained of difficulty in breathing and pain in the left chest. Two nights later there was orthopnoea, jerky cog-wheel expiration, and pain below the left shoulder blade. On the fourth day the X-ray showed a high-standing diaphragm on the right side (2 cm. higher) and free motion on both sides. On the sixth day the respiratory difficulty and pain had disappeared.

The author is of the opinion that an injury irritation of the pleura was present, caused possibly by a haemorrhage extending along the pleura. This explains the free interval. He has never before observed this in 900 gonter operations. Paralysis of the phrenic nerve or irritation, seems to him improbable for many reasons. Sauerbruch does not report any such phenomena in repeated phrenicotomies according to Kulenkampff the phrenic nerve does not carry any fibers sensitive to pain, Oehlecker believes that the pain must have some other source according to Hirschler long-continuing paralysis and pains are due to nerve injuries, and not to the effect of the novocaine suprarenin solutions.

BULGARIAN

Gembicki "Narcosis," New Hamamel Local Anesthetic ("Narcosis" on basis Hamamel-Local Anestheticum) Deutsche Zentralbl. Wochenschr. 9.3.v.15

By Zentralbl. f. d. ges. Chir. Grenzgeb.

The author has attempted to reduce the toxicity of cocaine by adding hamamel extract. In this way he has succeeded in diminishing the cocaine content to 0.75 per cent and obtaining the same effect as that given by a 1 per cent cocaine solution.

The mixture he calls narcosis. In contrast to suprarenal preparations, the hamamel extract has an anesthetic power but not toxic body and does not produce muscular contraction. It has tonic action on the heart and accelerates the healing of wounds. The author has used this mixture in about 1,000 cases with good results. H. 20

SURGICAL INSTRUMENTS AND APPARATUS

Connell, K. An Apparatus—Anaesthetometer—for Measuring and Mixing Anaesthetics and Other Vapors and Gases. Surg. Gynec. & Obst. 9.3.v.15. By Surg. Gynec. & Obst.

The author describes an apparatus developed from a commercial gas meter which measures and records the passage of air and other gases mixes two or more gases automatically in the desired proportion, and also feeds air and volatile liquid automatically into a common mixing chamber.

Delivery of these accurate mixtures to the patient may be effected by a closed face mask. After surgical anaesthesia has been once established however, the author prefers to deliver by insufflation. He describes his method of pharyngeal insufflation, which consists of insufflation into the lower pharynx per moment of the entire bulk needed for inspiration of an accurately prepared anesthetic mixture. For routine delivery this method is preferred to intratracheal insufflation.

The percentages of ether vapor in air required by man have been established by this apparatus as follows. The most advantageous delivery curve rises during primary anaesthesia to 35 or 45 per cent by weight of ether vapor to air at sea level. With the beginning of relaxation the curve falls to 26 per cent and within a few minutes to 2 per cent at which level it remains for five or ten minutes. The percentage is then gradually lowered to 5 per cent by the end of 40 minutes. This percentage has been found to establish the proper anesthetic tension for the indefinite continuance of full surgical anaesthesia. Lower percentages are used only where light anaesthesia is desired. The one variable factor is the length of time and the difficulty in maintaining a particular individual to this uniform anesthetic tension of 48 millimeters, an equivalent of 5 per cent ether vapor pressure in the alveolar air. The time varies from 5 minutes in an infant up to 40 minutes in robust alcoholic.

The author discusses the utility of heating anesthetic mixtures, and concludes that artificial heat is of importance only to effect accurate vaporization, since the actual loss of body heat through warming respired gases is negligible.

Accuracy of dosage and automatic delivery have increased the safety and efficiency of ether administration and decreased the shock of operative procedure and the sequelae of ether anaesthesia.

SURGERY OF THE HEAD AND NECK

HEAD

Kahn, L. M. Congenital Bilateral Fistula of the Lower Lip. Am. J. M. Sc. 9.3.v.15. By Surg. Gynec. & Obst.

The author reports twenty-two cases from the literature and one of his own. The latter is a patient

three years of age who shows no other facial or congenital deformity and is perfectly healthy. The family history is negative. The fistulae open on either side of the median line of the lip. The slightly oval opening admits a small probe which may be passed downward and in and toward the median line and inserted into fluid pockets just

beneath the mucous membrane on the inner surface of the lip. The fistulae are about 5 cm in length. They do not communicate with each other but are separated by thin fibrous partition. The openings are filled with a glairy transparent secretion.

I reviewing the cases reported, Kahn finds that the condition is usually accompanied by other congenital deformities such as cleft palate and hare-lip also that it frequently occurs in 1 or more members of the same family. He offers the following explanation: On either side the well-known median notch seen to persist sometime during intra-uterine life after fusion of the 2 halves of the lower lip has been completed, it is not unusual to detect slight secondary notching on either side. This becomes deeper its deepest portion becoming gradually buried until shortly a bulbar tract lined with mucosa is formed. The treatment indicated is excision.

H. A. Potts

Coleman, F. The Treatment of Fractures of the Mandible. *T. Internal Cong. Med. Lond.* 9, 3, 1907.
By Surg. Gen. & Obst.

Before considering the treatment of fractures of the mandible, few remarks on their etiology, position, and character will serve as an aid in determining the method of treatment to employ.

Fractures of the mandible are almost invariably the result of direct violence. The seat of the fracture is however not infrequently on the end opposite to that which sustained the injury.

Fracture of the mandible occurs rarely when the teeth are occlusion as under these circumstances the maxilla and mandible become for all practical purposes one bone so that the bruise of the blow is transmitted through the condyle of the jaw to the glenoid fossa, producing concussion of the brain and in some cases fracture of the base of the skull.

The signs and symptoms of fracture of the jaw do not fall within the scope of this paper but the author wishes to mention a sign that has so far escaped attention or has not been appreciated.

The sign in question is produced by an effusion of blood into the tissues of the floor of the mouth and gives rise to a very characteristic appearance of its mucous membrane, which becomes raised, forming bluish, tense swelling under the front part of the tongue. The sublingual fold lying beneath the tongue and the mandible is chiefly involved in this effusion as the mucous membrane elsewhere is too firmly bound down to bulge in this manner.

This sign alone will serve to differentiate an external bruise from an injury that has produced additional damage to the jaw for it is difficult to understand, from an anatomical point of view, how an effusion of blood can take place into this space bounded externally by the deep cervical fascia and the body of the mandible unless laceration of one of these structures has occurred. We can disregard the deep cervical fascia, which is not a structure readily torn, and therefore surmise that the breach has involved the body of the mandible.

The author has found this sign to be present almost invariably and to form as conclusive evidence of fracture of the mandible as effusion of blood into the orbital cellular tissue is evidence of a fractured base.

In young children it is sometimes impossible to make diagnosis immediately after the injury except by the use of skiagraphy or by the aid of an anæsthetic, nor is it strictly necessary. The parts are so much inflamed and swollen that effused blood that even if fracture were detected, it would be harmful as well as painful to apply pressure in any form over the swollen tissues. After a few days, most of the blood and exuded lymph will have become absorbed, the inflammation will have subsided, so that the mouth can be opened to greater extent and more thorough examination can be made with a view to diagnosis and subsequent treatment. Even if during the bony fragments be contemplated, this operation will be rendered far easier and less risk of sepsis will be incurred if it be delayed until absorption of some of the inflammatory exudation has taken place.

Fractures in children can usually be treated satisfactorily with metal gutta-percha or proplastic splints molded to the outside of the jaw. In adults if there be but little tendency to displacement of the fragments, the same methods will suffice.

Out of some 5 cases of fracture of the jaw that have passed through the author's hands for treatment he has only once been obliged to apply an internal splint for a child.

A vertical splint will allow slight movement at the condyle of the jaw but if the splint be carefully moulded very little movement will take place in its continuity.

The chief value of external splints is to keep the jaw at rest when there is not much tendency to displacement and to act as a danger signal in protecting the patient from further injury. The four-tailed bandage serves practically only the latter function.

Wiring the teeth together although a method that dates back to the time of Hippocrates, should rarely be used for retaining complete fractures of the mandible in position, and never if other methods be available. The teeth on either side of a fracture, if not already loose and tender, will rapidly become so when this unnatural strain is put upon them.

The principle of all mechanical appliances in the treatment of fractures of the jaw is to retain the fragments in position with a minimum of discomfort to the patient and with the least interference to the function of the part.

The internal splints employed for fracture of the mandible conform largely to three types, viz.

Those which utilize the teeth as their abutments in controlling the fragments—e.g. Hammond splint, Tomes splint.

Those which utilize the teeth and body of the jaw as their abutments in controlling the fragments—e.g. Kingston splint, Ackland splint.

3. Those which utilize the teeth of the opposite jaw (i.e., maxilla) as the buttments in controlling the fragments. Gunning's splint is an example of this.

Some of the splints used combine two or more of these principles or are reinforced by other means.

Before any form of splint is adapted to the jaw some attempt should be made to get the mouth into a clean condition.

Even if the mouth be clean and healthy at the time of the fracture it rarely remains so subsequently owing to the impairment of mastication and deglutition that results. Apart from this, there is a natural disinclination on the part of the patient to carry out the ordinary routine of cleanliness on account of the discomfort. Certainly not can this be performed satisfactorily by the nurse or surgeon in charge.

Moulds of the jaw are obtained from the gutta percha, or plaster pressed over the teeth; the material used being retained in a cup or tray. A counter part in plaster of Paris is made from the mould. There is no need to reduce the fragments while taking the impression, but the jaw should be carefully tended. The plaster model is seen through in the line of fracture should there be displacement, and the splint fitted to the corrected model. Models of both jaws must be obtained when the splint is to take its bearings on both these parts, or if the articulation of the broken jaw requires some rectification.

If metal plate or frame is to be fitted to the teeth dies must be obtained.

Splints made to fit the teeth gums. Both of these parts should be made slightly loose when there is difficulty in reducing the fragments, for although the deformity may be readily corrected on model it may be less easily rectified in the mouth so that allowance must be made for the difficulties that may be encountered restoring the parts to their correct alignment.

When the splint is ready for insertion, the fragments are reduced and an anesthetic is sometimes useful at this stage.

Splints are usually retained in the mouth for six to eight weeks. Even if the fragments have not come into accurate apposition, and slight gap exists between opposing teeth in the region of the fracture, this will be almost entirely effaced within six months, a year owing to the longening of the teeth until resistance from occlusion is offered.

Some two or three years ago the author devised a clamp that he hoped might be of great service in fixing the fragments of broken jaw, and obviating the necessity of making special splint for each patient.

The principle of the clamp consisted of a strong steel spring which could be opened to enclose the alveolus, and then released embedded itself in the bone by means of its projecting claws.

The splint was applied as follows:

The patient was placed under an anesthetic the fragments of the jaw were reduced the clamp was

opened (with special instrument) and forced over the jaw in the region of the fracture and then released, thus the clamp was left embedded each side of the fracture.

The sharp projections of the claws at the extremities of the limbs of the clamp readily penetrated the mucous membrane but did not sufficiently penetrate the bone to fix the fragments securely. The case with which the clamp could be inserted and removed, its cleanliness, and the ready access to the site of the fracture that it allowed, were advantages which appealed strongly in its favor. Moreover the clamp was adaptable whether teeth were present or not, and could be used over and over again.

The author has employed the clamp only in one case, and although the result was excellent, he is unable to say how much this result was due to the use of the clamp as in most cases of fracture of the jaw the result is satisfactorily provided there is no great tendency to displacement of the fragments.

The clamp was left on for six weeks or more during which time the patient experienced but little discomfort.

The principle of the clamp seems worthy of attention, and if only some means can be devised by which the hard tissues can be penetrated as well as the soft the clamp could form a useful means of retaining fragments of the jaw in position.

Wiring the fragments together is not a method of treatment often required for fractures of the mandible.

If Hammond or metal-cap splint has been utilized, semi-solid food may be given within a day or two, and after two or three weeks this may be gradually replaced by food incorporated with, finely divided solid food.

Those splints that fix the jaws to each other necessitate the maintenance of a fluid diet until the splint is removed. The spout of the feeding cup should be fitted with an India rubber tube which can be passed into the space afforded by the splint.

The opening of abscess may be required during the treatment of fractured jaw. This is usually only a temporary expedient; the abscess is usually due to necrosed bone and until this is removed or has become exfoliated, the cause of the abscess remains. Sequelae of the body of the mandible are very slow in separating, and a sinus may persist for a year or more.

In neglected cases the tissues around the jaw may be riddled with abscesses discharging through puckered sinuses.

Ankylosis of the temporo-mandibular joint is a frequent sequel of fracture of the condyle.

Failure of bony union is uncommon. Gurlt met with only two instances of failure of union in his 43 recorded cases, and both of these were subsequently cured by operation.

The chief causes of failure of union are want of rest of the fragments and necrosis, especially if the latter be extensive so that the ends of the lying bone are widely separated.

Van Lins, K. Suppurations of the Frontal Sinus (Über eitererfüllte Stirnhöhlenentzündungen). *Arch f Klin Chir* 93, 1914, 366.
By Zentralbl f d. gen. Chir. I. Grenzgeb.

Suppurations of the frontal sinuses originate exclusively in the nose. The most frequent cause is coryza and influenza. Much more rarely the inflammation is due to neighboring syphilitic or tuberculous processes or trauma. Both acute and chronic disease is a source of constant danger because the infection may spread through congenital clefts in the bone or by way of the veins and lymph vessels, but principally through necrosis of the bone. The tactlessness of the bony wall is chiefly responsible for the local character of the affection. The thin bony wall is most frequently destroyed. The consequences are increases in the orbit which in the most favorable cases perforate the upper eyelid, but frequently produce extensive orbital phlegmons. Necrosis of the tensor of the frontal sinus is less dangerous as the pus can be easily reached under the skin of the forehead. Most rarely does the disease affect the posterior wall in which case it leads as a rule to intra-cranial complications. In one of the days the bone may be destroyed by an acute violent inflammation and fatal meningitis may develop. Extradural abscesses may also be observed. Meningitis serosa is rare and more is favorable for the prognosis.

Diagnosis of frontal sinus suppurations with abscess formations is usually easy especially in the presence of pus can be determined in the middle nasal passage. While uncomplicated frontal sinus suppurations with abscess formations are successfully treated endonasally the abscess-producing forms are naturally attacked from the outside. Besides the location of the abscess the frontal sinus must be opened widely. Kuhnt, Kilian, and Roedel have pointed out the most useful methods. Their choice depends upon which of the walls is diseased. If the cranial contents are affected purely surgical principles of treatment are employed. Onodi gives suitable directions for puncturing the frontal lobes. Thrombosis of the longitudinal sinus also must not be overlooked. P. Weiss.

Nimier II. and Nimier A. On the Treatment of Fractures of the Petrous Portion of the Temporal Bone (Sur le traitement des fractures du rocher). *Rev f Chir* 93, 1914, 370.
By Journal de Chirurgie.

Admitting that non-infection of the tympanic cavity is of great importance in majority of fractures of the petrous portion of the temporal bone (the thumb on the basis of the mastoid of Theilpe and Valentin, do not advise surgical interference in these fractures). In most cases drying of the auditory canal and the application of an absorbent dressing to the external ear is sufficient. When there is suppuration in the middle ear either before or after the fracture, Nimier and Nimier believe that it should be the rule not to operate. Neither otor-

rhagia or escape of cerebro-spinal fluid are, according to the authors, *per se*, indications for operation. On the other hand, if a infection is present as confirmed by spinal puncture, then a decompression with permanent drainage is indicated. The subtemporal trephining is preferred to other craniotomies.

Decompression is indicated in cases of extradural hematomata in these fractures, especially if the mastoid ecchymosis comes at the location of the fissure. The authors prefer the submastoid route, the transmastoid with exposure of the lateral sinus. If the hematoma is intradural (supposing that the localization can be made clinically) the submastoid route is preferred.

In case there is a bone disease the authors, without admitting the absolute necessity of operation, recommend enlarging the opening in the tympanum. If there are concomitant encephalic troubles, they discuss an operation with respect to the site of the bone disease rather than preventive operation.

If the infection leads to serous meningitis or meningitis, operation on the ear generally suffices, as is the case in more severe infections, here however more radical operation including the cerebellar fossa and the submastoid region is necessary.

J. O'Connor.

Marges, W. F. Findings in Obscure Head Lesions. *J. Am. Med. Ass.* Boston, 93, Oct. By Surg. Gynec. & Obst.

The subject is treated under two heads: (1) The findings in the skull bones, (2) the findings in the brain and its processes. The findings in diseases of the accessory sinuses and mastoids, and diseases and irregularity of the teeth and facial bones are not included.

Various subjects discussed are the findings in the skull bones due to external and internal influences, the immediate results of injury the nature and extent of fracture, etc. remote results overlooked fractures the organization of blood clots osteomyelitis periosteitis and factors tending toward malignancy granules, etc. Abscess of the brain is most frequently due to infection from skull bones or their processes, hence roentgenographs will be of decided value in showing the source of infection and help to differentiate it from other conditions. Even the more superficial abscesses may be localized by this means. Atrophy of the inner table of the skull due to pressure seems to show on the roentgenographs the location of tumors, cysts, etc. when they are superficial. General thinning of the skull bones with depressions corresponding to the brain convolutions occurs when there is internal hydrocephalus from any cause. In external hydrocephalus the bones may be thin but the convolutions are absent. The skull sutures are apt to be separated in both. A certain number of brain tumors are dense enough to cast diagnostic shadows. Nearly all tumors at the base of the brain will produce internal hydrocephalus. Reference is made

the article by Bailey and Jelliffe on pineal tumors, and to abstracts of all reported cases (*Arch. Int. Med.*, 91: viii, 85.) Internal hydrocephalus was noted in nearly every case. This is clearly shown on roentgenographs.

The numerous investigations made of pituitary conditions are referred to only briefly. In twenty such recent cases with obscure head symptoms the author has found shadows of calcareous bodies in the region of the pineal gland. One case was an acromegalic, two had exophthalmic goiter and several were epileptics. Nearly all had severe headache at times and practically all had some irregularity of the sella turcica or chnoids.

Rasmovsky W J. The Question of Surgical Treatment of Cortical, Traumatic or Non-Traumatic, Epilepsy (Zur Frage der chirurgischen Behandlung der corticalen, traumatischen und nicht traumatischen Epilepsie) *Arch. f. Klin. Chir.* 93: 61-675. By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

According to the latest theories regard to the nature of epilepsy, strict differentiation between organic and genuine epilepsy is not permissible. In the majority of all the cases of genuine epilepsy examined systematically local affections have been found. Other forms begin as local spasms and assume the genuine character gradually. Local affections lead in time to permanent changes of diffuse character.

Of the local diseases the cortical and subcortical affections are especially adapted to surgical treatment. In some cases, however, the excision of the epileptogenous cortical centers has resulted in cure when the local organic changes were remote. In traumatic epilepsy changes caused by the trauma are found in the brain or in the covering layers. In traumatic Jacksonian epilepsy also without visible changes the removal of the centers is indicated. If general epilepsy without localized symptoms occurs after trauma the formation of a valve is indicated.

The author has operated in fourteen cases of non-traumatic Jacksonian epilepsy. One of these patients died at the end of nine months from purulent ependymitis of the ventricles of the brain. In more than half of the cases of epilepsy the results were good and only three of four were negative. In nearly every case bipolar stimulation was used to find the epileptogenous centers. In some cases this caused a pronounced epileptic spasm. In some only the beginning of spasm and in others only simple physiological contractions. After the center was found, the cortex was amputated in layers from seven to ten millimeters in thickness with sharp knife or spoon until the irritation caused no or only slight epileptic contractions. The center was excised also in cases where no epileptic cramps could be elicited. Sometimes paralysis occurred but in every case it soon disappeared. A disturbance of the stereognosis, acoustic larynx longer but anesthesia disappears quickly. In three cases of Koblenzlow's epilepsy an operation was per-

formed with good results the arm center being excised in each instance. WORMER

Rehn, E. A topolastic Fat Transplantation for Defects in the Dura and the Brain (Die Verwendung der autoplastischen Fetttransplantationen bei Dura- und Hirndefekten) *Arch. f. Klin. Chir.* 93: 61-66.

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

With the introduction of dura plasty the treatment of traumatic epilepsy has reached a new and successful stage. The result obtained by the author with autoplasmic fat transplantation has been very favorable. In order to judge the method, careful selection of suitable cases of purely typical partial and general traumatic epilepsy is necessary. A case can be pronounced cured only on the basis of an observation made from three to five years after the operation.

The results of dura plasty with transplantation of peritoneum, peritoneum and fascia also are discussed. The observed change of the transplanted fascia and pieces of peritoneum into fatty tissue the author considers a very useful sign of adaptation and an essential fact for the cure of traumatic epilepsy. In experiment with autoplasmic transplantation of fat in dogs, he obtained a reactionless cure without the least disturbance of the central nervous system. The greater portion of the fatty tissue preserved all its constituents unchanged and became the permanent possession of the part of the body into which it was put. The histological changes were illustrated with drawings. The transplantation formed a basal plate of connective tissue which completely covered the defect in the dura. Becoming more and more tense, though retaining its fine character it formed a full substitute for the dura. Adhesions to the soft cerebral membrane could not be avoided, but as they formed only delicate connective-tissue strands they could always be easily loosened. On the basis of successful cases the author recommends the transplantation of fat also for the purpose of plugging defect in the ventricle.

Dr. Auer

Luck, L. W. H. Air in the Ventricles of the Brain Following a Fracture of the Skull: Report of a Case. *Surg. Gynec. & Obst.* 93: xviii, 37. By Surg. Gynec. & Obst.

The author reports a case of a machinist who was struck by a trolley car sustaining a fracture of the frontal bone and skull. Twelve days later he was apparently normal as far as his mental state was concerned. A week after this, he had periods of mental confusion and melancholy otherwise he was normal except for increased knee jerks. The leukocyte count was 15,000. The eye grounds showed bilateral optic neuritis. The condition was diagnosed as due to intracranial pressure caused probably by an abscess.

A series of X-ray plates showed that the ventricles were enormously dilated with either air or gas. The

ventricle was punctured through a right-sided subtemporal opening. On exposure the dura did not bulge and was not particularly tense. A fluid escaped when the dura and pia were incised. A slight meningitis was noted. A needle was passed into the anterior horn of the lateral ventricle and the removal of the trocar was followed by spurts of clear fluid. Eight cubic centimeters of clear cerebrospinal fluid also escaped. Owing to the presence of the skull in the ventricle, small pieces of twisted rubber tissue as inserted into the chiasmatic cistern through suboccipital opening. Considerable clear fluid mixed with it passed from here also. The patient died still comatose the fourth day after operation when his temperature suddenly rose to 107° and he died.

At autopsy it was found in the ventricles. There was a lacerated wound of the base of the right frontal lobe beneath the anterior horn and over the fracture of the orbital plate which communicated with the frontal sinus. It was subsequently learned that the skull was probably forced up into the ventricles through the fracture of the frontal sinus during an attack of alcoholism. (Low and L. Cornwall.)

Brums. The Treatment of Tumors of the Brain and the Indications for Operation. Verhandlung der Oekumenischen und die Indikationen für deren Operationen. *T. Internat. Cong. Med. Lond.* 9. 3. 1913. By Surg. Gynec. & Obst.

Operative treatment of tumors of the brain is of two kinds: radical operations (the extirpation of the tumor) and palliative operations (for the relief of the brain). The latter are usually primary but if for any reason the radical operation is not successful, they may be secondary. The indications for the radical operation and the prognosis of this operation depend upon three things.

The nature of the tumor. The most favorable are the sharply circumscribed tumors and especially those that are extra-axial. Unfavorable are those that are intra-axial. The prognosis of the operation depends upon the degree of differentiation between the common infiltrating glioma and the sharply circumscribed sarcoma. It is still very difficult.

2. The possibility of making a positive general or local diagnosis. The general diagnosis may be difficult on account of brain, hydrocephalus and the so-called pseudo-tumors. Local diagnosis is often impossible in cases of tumors of the right temporal and frontal lobes and is difficult in cases of tumors in the ventricular system and the corpus callosum.

3. The accessibility of the tumor. Tumors of the brain in the third ventricle are inaccessible to open treatment as are also many of those in the medulla of the hemispheres. All others are accessible to surgical treatment with varying degrees of danger attending the operation. Primary palliative operations are indicated in cases in which though there is no local diagnosis, the general diagnosis is positive and the general symptoms are very severe. They are indicated especially if the vision becomes so impaired that blindness is threatened.

Leri, A. Acromegaly (Hormonopathy). *N. sch. d. Ver.* vol. 19, 3, 1913.

By Zentralbl. f. d. ges. Char. u. l. Genaue.

The symptoms and course of the disease are described in detail. The diagnosis, which is not spoken of, rests on the characteristic physical findings, is fully discussed. Cases which are not so evident the X-ray may be used to confirm the diagnosis. The sella turcica is markedly enlarged, the skull is not of uniform thickness, and the various sinuses are distinctly widened. The eminences posterior to the lambdoid suture are much more prominent than normal. X-ray pictures are especially useful in the beginning of the disease to prevent confusing it with those conditions which do not as a rule, involve the bones of the skull as well as those of the trunk and the extremities, but are confined either to one or the other, i.e. Paget's disease, rickets, myxodema, leontiasis ossea of Virchow or cephalic and the hypertrophic pneumatic osteoarthropathy of Marie. The clinical picture of these various diseases is outlined sufficiently to bring out the differential diagnosis quite clearly. The objectively demonstrated changes in the hypophysis as an etiological factor conclude the first part. In the chapter on the pathogenesis and pathological physiology the author discusses various hypotheses. It is of the opinion that the cause of acromegaly is to be found in a lesion of the pituitary gland, and that back of this is a dystrophic condition of the gland. The fact that tumors of the hypophysis occur without producing acromegaly does not affect this theory since it has been shown experimentally that microscopically small portions of glandular tissue are sufficient for physiological function.

Whether the symptoms are produced by hyper- or hypo-secretion is hard to determine as the argument for and against is not at all conclusive. Of therapeutic measures such are operable, hypophyseal organotherapy is suggested if it can be proved that hyposecretion is the cause of the disturbance. The results of this method have been unsatisfactory. Radiotherapy is capable of destroying hypophyseal tumors and seems to give the best results if applied in the form of the crossed rays. Bédère applies the rays to the hypophysis through the mouth and over the forehead and parietal regions. The earliest possible treatment is credited with the best result. If both of these lines of treatment prove unsuccessful, surgical procedures are indicated. Horsch operates through the nasal cavity. After resecting the septum and the upper sinuses he enters the sphenoidal fossa. Of only six patients operated upon by this method, three died and fifteen also decided improvement. Von Schöller and von Euseberg used the nasal route. The former by separating the nose from above down and the latter by making the flap from within outwards. By this method the ethmoidal cells are removed, the sphenoidal fossa opened, and its posterior wall removed. The results are gratifying. The severe headache subsides, the

linal disturbances were benefited and the osseous deformities were checked. Three cases that prior to operation had cleft coryza died of meningitis. Acute nasal inflammations therefore are contraindications to operation. CROSS

Stendell, W. The Comparative Anatomy and Histology of the Hypophysis Cerebri (Zur vergleichenden Anatomie und Histologie der Hypophyse). Berlin: J. Neumann, Poeschl & Co., 1913. 40 pp. By Zentralbl. f. d. ges. Chir. (Grenzgeb.)

The author has examined the pituitary bodies of Selachii and the camel and the elephant and has studied the functional relations of the part of the hypophysis, the production of the secretion, in spite of their common origin from the epithelium of the primordially buccal in the anterior lobe and the pars intermedia must be regarded as a different ductless gland. The pars intermedia, which is poor in blood vessels, is closely connected in all animals with the posterior lobe, which is abundantly provided with blood and lymph vessels and which, on account of its purely neuroglial structure, must be regarded as a conductor for the secretion of the pars intermedia rather than a secreting gland.

In some species of animals definite pathways from the secreting glands of the pars intermedia to the posterior lobe can be demonstrated. Since colloid is found only in ooloid and ooloid in both the anterior lobe and the pars intermedia, it must be regarded not as a normal secretion but as evidence of degenerative processes. However it may be taken as an indication of the course followed by the normal secretion, which cannot be demonstrated. While the pars intermedia is most highly developed in the lower mammals and steadily decreases in size as it rises in the scale in man the prehypophysis is most highly developed. Throughout the whole animal kingdom it is connected only slightly with the pars intermedia and the posterior lobe frequently by a connective tissue septum or small pedicle (Saurioptera). In the amphibians the two parts lie side by side without any organic connection and in mammals they are separated by the hypophyseal recess. Therefore it is probable that the secretion of the anterior lobe is not conducted through the posterior lobe but is discharged directly into the blood.

The glandular cells are located on the epithelium of the blood vessels in the vessels. Congealed secretion can often be demonstrated. The author agrees with Benda and Creutzfeldt as to the identity of the three kinds of cells of the anterior lobe, that he regards them as only different stages in the development of one kind of cell. In the lower animal orders there are frequently masses of secretion lying between the vessel walls and cells.

As the result of his experiments the author concludes that the theory that the part of the hypophysis has different internal secretions is confirmed by the morphological character. TOLAR

Au toni, A. Experimental Compression of the Hypophysis (Sulla compressione artificiale del l'ipofisi). *Pubbli. n. Roma*, vol. 31, 9, 1913, 59. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author claims priority over Chiasseroni in experimental investigations on the hypophysis in situ since his article, hypophysectomy (Pado-va, Ed. Soc. Coop. Tip. 1912) he gave a new method for studying the function of the gland. In order to overcome the severe traumatism which occurs during the removal of a gland for the purpose of eliminating its function, the author introduced a laminaria bougie close to the hypophysis for the purpose of slowly compressing it in situ. By means of this artificial mass he was able to determine conclusively whether the explanation of the hypophyseal symptoms (acromegaly, dystrophia adiposogenitalis, glycosuria, somnolence, cachexia, hypophyseopriva) on the basis of the mechanical action of the tumor is correct. The object was not so much to lead up to the syndrome of acromegaly as to decide whether it is the pressure of the pituitary body or of the neighboring parts of the base of the brain that called forth the dystrophia hypophysaria.

Dogs were used for the experiments, but monkeys were better adapted. All of the animals were young and fully developed. The control dogs of the same sex, race and age as the other. In the one the dry sterilized laminaria bougie was introduced between the hypophysis and the base of the brain, while the control the part was exposed, the same way but the bougie was not introduced. In looking for the hypophysis the author used a new procedure for craniotomy, the temporosphenoidal, similar to the Hantley-Krause method for resecting the gasserian ganglion. On the right side of the head a horseshoe-shaped flap, including skin, temporal muscle and pericranium was made. This was turned back. By opening the mouth the coronoid process was drawn down and the proper part of the pterygoid muscle was freed, and thus the anterior inferior part of the parietal the squamous portion of the temporal, and the greater wing of the sphenoid bones were laid bare. All of these parts were removed to the cranial sphenoid foramina, and thus the brain could be raised so as to expose the hypophysis. The author recommends the same procedure for the operation on the human being. The method is preferable to Pulevsky's, for in laying the scalp flap down one has less room below and must do more trephining besides being obliged to raise the brain much higher. It is also better than the modification of Chiasseroni in which the flap is not resected and the temporal muscle is cut cross. STAVITZKY

Preysing, A. New Method of Operating upon the Hypophysis (Beitrag zur Operation der Hypophyse). *Internat. Zentralbl. f. Laryngol. Rhinol.* 1913, 9, 3, 40.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb. Preysing recommends operating on tumors of the hypophysis by resecting the hard palate. This

method is especially valuable for very large tumors, for which the author has used it in four cases. He believes it offers closer approach to and better view of the field of operation than any procedure that has been used previously. *Dixon.*

Holmgren, G. Operations on the Hypophysis by the Nasal Route (Über transnasale Hypophysenoperationen). *Hygien*, 9 3, 1917, 481.

By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

The author gives very detailed description of case of tumor of the hypophysis which he observed and operated upon. The patient was a man thirty-four years of age who had always been well previously. For 1 year he had had periodical headaches which varied in intensity and were more severe on the right than the left side. Visual disturbances were first noticed in the left eye and then in the right. After a year there was only partial perception of light on the temporal side of the right eye and the visual acuity of the left eye had decreased to 1/800. On admission to the hospital the patient could count fingers with the left eye only when they were held immediately in front of the eye. There was temporal hemianopia and the visual field was very much decreased concentrically. The right eye had not changed since the previous examination. On both sides there was marked optic nerve atrophy. Polyuria was marked. Great changes in the X-ray picture. The operation was performed. Technically it was as easy as the possibility of reaching the dura was considered. The entire roof and posterior wall of the sphenoidal sinuses as simply mass of soft red, pulsating tissue pushing forward into the sinuses. The operator could not find any definite tumor so he merely punctured the dura and curetted. The operation lasted for one and a half hours. Iodoform gauze tampons were placed in the nasal cavities. There was no drainage of the sphenoidal sinuses. The operation was followed by a transitory rise of temperature and complete blindness for a few days. This the author attributed to the fact that the sphenoidal sinuses and the cavities in the tumor had filled up with blood that was not entirely sterile. After a month the patient could count fingers at a distance of one meter from the left eye. The visual field increased on the nasal side. The pupils were not so pale as before the operation. Three weeks later the patient was well could read the time, his weight, and was able partially to carry on his work of farming. *Graetz.*

Johnston, G. G. The Radiology of the Pituitary Body in Epilepsy and Pituitary Disorders. *J. Am. Radiol. Soc.*, Boston 9 3, Oct.

By Surg. Gynec. & Obst.

Johnston has made X-ray studies of the pituitary fossa in some eighty cases of epilepsy which included principally patients who developed epilepsy between the fifteen and thirty-fifth year and did not include patients who showed epileptic attacks as

part of the symptom-complex attendant upon pituitary trauma. He has been struck by the practically constant occurrence in such cases of marked hypertrophy or hyperostosis of the posterior clinoidal processes which results in an apparent roofing of the fossa with consequent encroachment upon and interference with the posterior lobe of the pituitary.

Attention is called to the work of Cushing, who has shown that posterior lobe hypopituitarism will produce epilepsy and believes that this is the probable explanation of the cause of the attacks in the class of patients described. He shows repeated examples of this type of anatomical deviation in this class of cases and states that the feeding of posterior lobe extract to such patients is followed by interesting results.

The author makes no attempt to explain the occurrence of the hyperostosis beyond the statement that syphilis seems to play a part and that in some of the cases the process is apparently active. He makes plans for the examination of large number of this class of patients in order that the true percentage showing this condition may be determined. He believes that in some of the cases reported, the gland is so interfered with that its functional activity is hampered and in some of the cases calcareous degeneration of the gland was apparently going on. In many of the cases shown, the shadows of the anterior and clinoidal processes not only meet but decidedly overlap. In his own series of cases this condition was found to be present to greater or less degree almost invariably.

In order to be of value the examination must be made with strict attention to the planes of the skull so that distortion may be avoided. In the cases shown and described, pituitary tumors are excluded although a number of such cases showing epilepsy as one of the symptoms were classified and described separately.

The epileptics examined were selected by the neurologists, McKennan, Henninger and Mayer. Cerebropathy, cerebral syphilis, etc., were excluded.

NECK

Nicoll, J. H. The Avoidance of Unsightly Scar Deformities in the Operative Treatment of Cervical Lymphadenitis. *Glasgow M. J.* 10 3, 1917, 8.

By Surg. Gynec. & Obst.

Reference is made by the author to the changed attitude that the profession has taken toward the treatment of tuberculous joints. A few years ago the attempt was made to remove all of the tuberculous tissue in connection with tuberculous joint. Nowadays much more conservative measures are followed and more dependence is placed upon the patient's ability to overcome the infection when slight stimulus is given either through the removal of part of the tuberculous material, the injection of some stimulating drug into the region, or combination of both measures. The same change toward

conservatism has been noticed in the treatment of tuberculous lymphadenitis especially that of the cervical region. The radical operation is the clean removal of all of the diseased glands has in part at least, given way to a more conservative and less disfiguring measure.

The operations which the author emphasizes especially are Treves operation and Dollinger's operation.

The Treves operation is performed as follows. A small incision is made, usually in the region of and parallel to the clavicle. Through this incision the enlarged glands are tunneled out by the dissecting finger. A small gauze wick is placed in the opening for drainage.

The Dollinger operation is very similar but is intended primarily for operations upon glands in the occipital region. The incision is made in the hair line and the lower flap is turned down so as to expose the underlying glands. The latter are then removed *en masse* as far as possible and the wound closed with small gauze drain.

J H SIMES

Morestin, M H The Excision of the Groups of Cervical Lymph Glands in Cancer of the Mouth and of the Pharynx (*Evidences des gites ganglionnaires cervicaux dans les cancers de la bouche et du pharynx*) *J de chir* p. 3, 2, 637
By Surg. Gynec. & Obst.

Morestin contends that the doubt in prognosis in cancer of the mouth has been due to the delay in surgical treatment and to too-restricted operations. Cancers of the mouth and pharynx remain strictly local for only a very short time; they extend very rapidly into the lymphatics. On the other hand they very rarely form distant metastases, and thus can be considered quite favorable for complete eradication of the disease provided the surgeon regards not only the initial lesion, but also the entire lymphatic apparatus which drains the region in cancer that should be removed.

All cancers of the buccal mucous membrane the lip, the cheek, the floor of the mouth, the tongue, the pharynx, the nasal fossae, and the jaws, all cancers originating in the skin which have infiltrated the depths, and all cancers of the parotid demand absolutely the extirpation of the corresponding groups of cervical glands. This extirpation may be uni- or bilateral; it can be done without sitting with extirpation of the primary growth or may precede or follow the latter. The operative technique varies somewhat according to the site of the primary lesion, the degree of involvement of the gland, whether they be movable or fixed, and surrounding tissues, and the degree of the resistance of the patient.

In the cases in which the cervical nodes are not palpably involved, but are to be removed as part of the treatment of the disease, Morestin proceeds as follows. The head is turned slightly away from the field of operation. The incision comprises at first three branches, the center being at the superior border of the thyroid cartilage, a little

anterior to the sterno-clavicular muscle. From this center one incision is carried forward to the symphysis of the chin, the second goes to the anterior border of the mastoid process, and the third travels downward and backward to the clavicle at the posterior border of the sterno-clavicular muscle. In some cases it is necessary to make a fourth complementary incision extending backward from the inferior end of the third incision along the superior border of the clavicle. The three flaps just outlined are dissected, the upper to above the inferior border of the mandible, the anterior as far as the median line, and the posterior freed from the aponeurosis of the sternomastoid, well posterior to this muscle.

The external jugular vein will be encountered in this dissection with one, two, or three lymph-nodes at its upper extremity. It is ligated above and below and cut at once (Fig. 1). Beginning at the top the entire inferior border of the mandible is laid bare. The facial artery and veins are cut between clamps in front of the masseter muscle and the inferior end turned down toward the submaxillary region together with a paramaxillary premaxillary node which generally accompanies them. The submaxillary gland with the nodes found at intervals on its external superior surface is freed from the bone and the parotid is separated from the anterior border of the sternomastoid as far as the mastoid process. Many veins from the parotid to the external and internal jugulars and to the facial are cut in this dissection. The posterior belly of the digastric is uncovered. Next, going forward, it is necessary to bare the anterior belly of the digastric to scoop out the interdigastric space carefully detaching the two or three nodes found there with all the cellular tissue and to bare the fibers of the mylohyoid to their median raphe. The glands enveloped in cellular tissue are turned back toward the submaxillary region. The angle formed by the digastric with the inferior border of the jaw is the submental artery. This is clamped and cut. The submaxillary gland is then easily drawn back, freed from the mylohyoid, and entirely detached by cutting Wharton's duct. After clamping the facial artery as it passes within the digastric and mylohyoid the emptying of the submaxillary space is completed by laying bare the tendon of the digastric.

In tracking the carotid region, the subhyoid and particularly the anterior belly of the omohyoid are first detached. Then the superficial cervical fascia is incised along the posterior border of the sternomastoid and dissected from behind forward to the anterior border of this muscle including the external jugular vein with its accompanying lymph-glands. Having freed the anterior surface of the sternomastoid, its inner border is very carefully dissected to its entire length and the carotid region is thus widely opened. The spinal accessory nerve is isolated from the point where it first enters this space until it enters the muscle. Behind this nerve is an important group of glands often buried in mass of fat. The glands and fat are dissected *en bloc* the

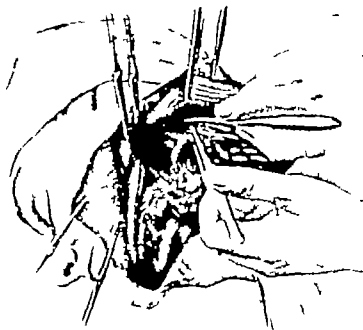


Fig. 1. Incision was from above, along and of the lymphatic chain along posterior border of internal jugular vein.

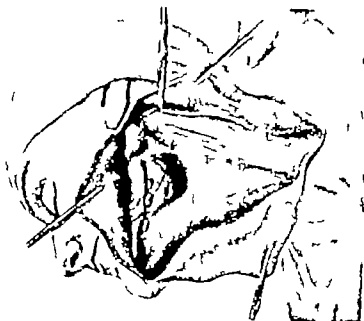


Fig. 2. Showing the reflection of the skin flap and exposure of external jugular vein.

dissection being carried to the deep muscles of the neck if necessary. The freed mass is pushed under the spinal accessory and is drawn anteriorly. It is then possible to dissect from above down and the entire chain of lymphatics and cellular tissue along the posterior border of the internal jugular vein (Fig. 3). The jugular vein is carefully cleaned from behind forward, and where the thyro-lingual facial trunk is met it is cut at its junction with the jugular. The emptying of the region is completed by liberating the anterior part of all glands and cellular tissue that it contains and the small amount of cellular tissue around the greater corner of the hyoid (Fig. 3).

The supraclavicular triangle, the cleaning of which is a precautionary measure that is well to take, can be completed either before or after the completion of the preceding step without much loss of time. After the anterior border of the sternomastoid has been freed the posterior border is exposed. Its entire length, the superior border of the clavicle is freed, then the posterior belly of the omohyoid, and then the anterior border of the trapezius and the entire packet of fat and glands in the supraclavicular triangle dissected up from below. Although this tissue is usually easily separated from surrounding organs, close attention must be given to the jugular vein, the brachial plexus, the phrenic nerve, the transverse cervical artery and the large veins from the trapezius and the subclavia.

When the operation is terminated (Fig. 4) all of the gland-bearing tissue of one side of the neck, except the negligible subhyoid has been raised. One block and not single gland has been sought or cut or pinched with the forceps. I cause the sternomastoid muscle is different from the fixed and enlarged glandular masses, the anterior superior carotid region, the operator can be sure that the internal jugular vein is involved and that both muscle and vein must be sacrificed. As soon as the skin flaps are raised, the skin still being in the sternomastoid is cut close to its attachment to the clavicle and mastoid. The jugular vein is buried beneath the omohyoid divided by the clamps, separated from below upward from the carotid and pneumogastric. The supraclavicular triangle can then be easily cleaned. The common carotid, the internal carotid and the pneumogastric can usually be spared. As the anterior superior carotid region is most involved, it is not attacked until the submaxillary and then the anterior carotid supraclavicular and posterior carotid regions are finished. The order of attack may be varied but would all converge upon the region most involved which is left to the last. Resection of the sternomastoid often shortens the time of operation.

The technique varies little if the supraclavicular or submaxillary groups are adherent. The last complication is met with frequently and is handled by beginning the operation by leaving the supraclavicular and carotid exposed and ending by the ablation en bloc of the submaxillary region, the part of the mandible.

If the glands at the base of the neck are large and adhere to the author advises resection of a half or even the inner two-thirds of the clavicle to facilitate the dissection of the region. No bad functional results follow this procedure.

The technique used and the decision as to whether one or several-stage operation should be performed depends upon the location of the tumor and the condition of the patient. The one-stage operation is the operation of choice.

In cancers of the floor of the mouth, Morestin considers it essential to remove all of the lymphatics of both sides of the neck. This operation he performs in three stages: first total excision of the glands of one side; second, the total excision of the glands of the other side; and third the excision of the structures of the floor of the mouth with resection of the mandible usually at the level of the second molar. This procedure is adopted in order to avoid infecting the deep structures of the neck when opening into the mouth cavity. One, or at most, two weeks, are allowed to intervene between the steps.

In cancer of the tongue the operation is performed preferably one stage owing to the dissection of tissues which renders two-stage operation exceedingly difficult. If the tumor is confined to one lateral side of the tongue, the suprahyoid, the anterior and posterior carotid, and the supraclavicular groups of the affected side and the suprahyoid, the anterior and posterior carotid groups of the other side, the belly of the omohyoid of the sound side are excised. The dissection is commenced from below, always working from below upward and from behind forward. Before opening the buccal cavity, the anterior border of the sternomastoid is cut red, the subhyoid and digastric muscle and the pharyngeal wall order to protect the carotid region from infection. The tongue is divided exactly the midline from tip to base. All remaining tumors are utilized as well as possible to close the defect and the wound packed tightly with iodoform gauze. The only other drainage is one rubber tube placed seniorly in the line of incision, and another through at the posterior flap. This technique is varied somewhat according to the seat and size of the tumor. I omit details of technique for each case, refer carefully described.

In cancer of the neck and of the labial commissure it is necessary to excise all the glands of the affected side with resection of the mandible between the tumor and the submaxillary gland and all the suprahyoid glands of the opposite side. This operation is performed preferably in two stages, the first being the excision of the tumor with all the suprahyoid glands of both sides; second, the external dissection of all the glands, including the supraclavicular gland, of the affected side.

For ordinary cancers of the lip, one-stage operation is performed. The glandular dissection is not carried beyond the anterior carotid group. The only precaution is to close the incision for the glandular dissection before attacking the tumor.



Fig. 4 The myofascial sheath is pulled back and the joint is exposed.



Fig. 5 The anterior border of the rectus abdominis muscle is reflected and the joint is exposed.

lat t. or three lages l order to render it support ble. I these cases ligation or better excise f the internal carotid with its branches, is a wise precaution. If the buccopharyngeal cavity is opened at the same t ge that the carotid region is exposed, the latter should be sealed off from the former by sutur g the t rnomastoi muscle t the subhyoid the digastric and the pharyngeal v U If the lymphatics re there t the terromas told, the l ternal jugular nd pneumogastric f one side may be sacrificed tho t fear th ternal and common carot d must be preserved t all cost nd ca almost lw ys be separated from the agglutinated glands whi b surround them. Respecto f the lavicle perm t more ext nsu operatio and the removal of ppa ntly firmly where t lymphatics. The prognosis is best whe the lesions are least advanced the ganglia most movable and the subject most constant. It is the more satisfact ry as t dist t result the more the eradication l complet y ms tel method call nd anatomically cond tent. All ll good technique allows us t f the surgery with co fidence nd proves that the radi cure of these cancers ca be regula ly bt ined f the patient re operated upon as here dv and d t support ne time

Grubbs A. Tumors of the Carotid Body: with Report of Tw Cases. *Chir Land U J* t 1901 137 B 3093 (Dec. & Oct)

The a thor gives a brief res me f th diff ulties that ere encounte red classifying the tumors f the carotid body until gus hasified the carotid gland with the sympathetic nervous stem bas g his classification n the large mou t i ners. Thus that the gland contains nd the close relation that it bears t the sympathetic nervous vstem.

The only lesion f the carotid body so fa described as a characteristic tumor and the descriptions of all of the new growths ha been quit simila. Up t 93 thirty five cases have been reported.

The a thor gives t additional so histories lib descriptions of the operations. The operations ere performed b (nik v ry complet description of both the gross nd th microscopical structure of these tumors forms the larger part f the article. There re nine illustrations of the specimens nd microscopical sections. The t mors dcribed correspond very lowly clinically anatomically and histologically t the other tumors of the carotid gland reported. (rahnam does not attempt to classify the t mors spec fically as the embryological origin of the gland has not been definitely settled.

I thirty-six cases of which complet case reports re giv en, the tumors occurred i 9 males nd 7 females. The crage age t hich they ere found was 36 years the youngest patient 7 years of age and the oldest, 63. I twenty-t ases all three carotids ere ligated, and in five the external carotid alone. I seven cases the tumor was re-

moved without inj ry t the vessels. I six cases there wa injury t the vagus nerve in eight, to the hypoglossal nd i four t the sympathetic. Hemiplegia occurred four times. Four of these patients li ed nd one died. In ne case the patient suffered cerebral hemorrhage but recovered. In fou cases there ere recurrences in three after ligation of the carotid ith removal of the t mor and in ne after the removal of the tumor only. Tw cases eurred within year one in four months nd the ther in tw mo ths. The results in two cases operated upon are not st ted. I two cases death resulted from pneumonias in three from hemorrhage and hock nd in one from hemiplegia. I ne case d ath occurred from cerebral hemorrhage one month after the patient left the hospital, nd in nother from recurrence t the end of a ea. A omplet bibliography is appended.

DOUGLAS GORDON

G thal P. A Contribution t the Surgery of the Neck. I U lateral Resection of th Internal J g la nd Pneumogastric Harmless? (Contributions à la chirurgie du cou. La résection unilatérale de la jugulaire interne et d pneumogastrique est-elle inoffensive?) *Rev d chir* 93 i III, 90.

By Journal de Chirurgie

Unilateral resection of the internal jugular and pneumogastric is generally considered harmless. The following cases diled t several there already published tend t disprov this.

A ma of fifty fi was ff ling from pavement cell epithelioma f the right vocal cord nd there ere scarcely perceptible lymph nodes long the course of the left carotid.

At th first operatio the ganglio s, th left internal jugula nd the pneumogastric ere resected th no immediate trouble. Later tracheotomy as performed. At 6 the evening the patient semi-comatose respiratio 40 pulse 8 temperature 38° C. On resuscitation there was a pleuropneumonia f the left side nd parais of the right. The next day complet coma nd right hemiplegia respiratio 4 pulse 30, temperat 38° C nd double pneumonia. Death occurred fort-eight hours after operatio.

G thal believed that the rapid oncomi g of pulmonary lesions could be ascribed nly t the sec tio of the pneumogastric, although such trouble after urgical section f the gas is rare. The cerebral symptoms could be ascribed only t the ligation of the jugula vei. There ere no symptoms or signs f trouble the carotids. Autopsy as not possible.

In this case the symptoms ere similar t those reported by Lamer kimmer nd von Bruns, which ere co trolled by utomy. The cerebral symptoms ere due t venous hypertension of the brain, giving symptoms o both sides, but especially on the side of the ligation. I general, these sympt ms due t insufficiency of the remaini g j gular. Exploratio of the jugula before operatio would be of no

vall, however as aphasia if the sinus portion would not be noted. J. Oseroere.

Edm 93, W Thyroid. J. Pathol. & Bacteriol.
9 3, xvii, No By Surg. Gynec. & Obst.

This paper is the ninth of a series by the author and deals largely with the metabolism of sugars in dogs who have undergone total thyro-parathyroidectomy and have survived on milk diet supplemented 4 times by additional calcium lactate. The author reports the cases of dogs living and in good condition eight and fifteen months after total thyro-parathyroidectomy having been kept on a milk diet during that time. He adds the interesting observation that animals will survive total thyro-parathyroidectomy if they are fed large quantities of milk but that they will not survive if the milk is obtained from thyroidectomized animals. This would indicate that the comparatively larger amount of calcium salts ingested in the milk does not alone account for the survival. Comparing the results of analysis after feeding glucose and lactose to both normal and thyro-parathyroidectomized dogs the author concludes from a small number of observations that in dogs the thyroid gland hinders the assimilation of sugar while the parathyroid gland favors the assimilation, and that the parathyroid action favoring assimilation is greater than the thyroid action hindering it. H. B. Lounsbury.

Bauch Pathological Changes of the Thyroid Gland in Syphilis (Zur Frage der Schilddrüsenveränderungen bei Syphilis). Dissertation, St. Petersburg 9 3. By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

The author investigated the morphological changes of the thyroid gland in congenital and acquired syphilis. The differential syphilitic changes the influence of other factors, especially of infectious diseases, must be excluded. In the first chapter the iron-hard strumitis first described by Riedel is mentioned and is considered probably not a clinical entity but as due to syphilis or tuberculosis.

In the second chapter Bauch gives a short review of the investigations of thirty-eight cases of syphilitic thyroids reported in the literature. Of these, fifteen were carefully examined. He concludes that there are two syphilitic processes that can occur in the thyroid gland: the interstitial and the gummatous. In the remaining twenty-one cases the diagnosis was made *ex juvantibus*. Of special interest are seven cases of definite Basedow's disease in which the author adds that more than all of these potassium iodide was administered in large doses. It is well tolerated and caused permanent improvement notwithstanding symptoms of hyperthyroidism and Kocher's warning not to employ iodine in goiter cases.

The author's conclusions tabulated in chapter four are as follows. The average weight of the thyroid gland of premature syphilitic fetuses was 3 per cent greater than those of the control cases. In full-term syphilitic children, however, the weight

was 36.6 per cent less. In premature syphilitic children the inter and intralobular connective tissue was little stronger. In adults with acquired syphilis the interlobular connective tissue was more developed. The average size of the gland lobules and follicles was larger in all syphilitic cases than that of the controls. In the premature cases the dark, firm colloid made its appearance earlier and was more frequent. Vacuolization was marked whereas in the controls it was entirely absent. In full-term syphilitic children and in adults the dark colloid also occurred. Vacuolization, however, as less marked than in the control cases. Cellular desquamation appeared more marked only in the premature syphilitic children. No appreciable difference was found in the size and form of the nuclei of the follicular epithelium. The number of fat droplets in the follicle cells was greater in syphilitic than in normal thyroids. The quantity of blood in the syphilitic gland was greater. The condition of the vessels was surprising. The changes which in other organs are considered as pathognomonic for syphilis occurred in the thyroid only exceptionally and then only to a slight degree. In all of the cases there were noted conglomerations of nuclei which must be considered as the antecedent stage of follicle. They are, therefore, more common in young than in old glands.

From all of these findings the conclusion must be drawn that changes of the thyroid gland in congenital, as well as in acquired, syphilis are not in any way specific. They are more quantitative than qualitative in nature. In congenital syphilis the gland develops earlier, colloid appears earlier in its follicles, and fat appears in the follicle epithelium earlier and in larger quantity than in the controls. The functional changes in syphilitic glands naturally must be quantitative in nature. In view of the microscopic findings, the function must begin very early. Later it must be inferior to that of normal glands. Extensive chemical and hematological investigations must decide this. Six microphotographs and twelve large tables accompany the monograph.

Stroessner.

Krecks, A. The Effect of Thyroidectomy on Thyroid Affections (Der Einfluss der Strumektomie auf die Thyreosen). Deutsche Zeitsch. f. Chirurg. 9 3, xlvii-48 u. Feuchter. Strumpell, 137. By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

Krecks asserts that from 50 to 60 per cent of his goiter patients have general disorders either of the nervous system, the circulatory system or of metabolism. These disturbances he designates as thyreoses and divides into three grades. Of the first grade are general disorders of metabolism accompanied by merely subjective feeling of palpitation. The second grade includes those cases with tachycardia and pulse beat up to 20 per min, but without exophthalmos. The third grade includes cases that show the typical picture of Basedow's disease.

The thor calls attention to the occult thyroid disorders which are difficult to diagnose. For confirmation of the diagnosis he recommends the administration of iodine or thyroid gland tablets which increase the thyroid symptoms. Kocher's blood picture and the ineffectiveness of digitalis on the pulse also help to confirm the diagnosis.

Of 85 patients operated on for goiter 54 had thyroid symptoms. 13 of these cases the symptoms were of the first degree in 7 of the second degree, and 15 of the third degree. Later reports from 44 of these patients showed that 50 per cent recovered and 30 per cent had improved. A small number were not helped at all, or helped only slightly. It is probable that these had nervous disturbances of some other origin than that of the thyroid glands are involved. *Excerpta Medica*

Wilson L. B. Notes on the Pathology of Simple and Exophthalmic Goiter. *Med Rec* 93 March 27-31. By Surg. Gynec. & Obst.

This paper is a review of the pathology of the thyroid glands removed from 203 patients in the Mayo Clinic who presented symptoms that could ordinarily be diagnosed as exophthalmic goiter. For purposes of control, the pathology of 585 thyroids removed from patients whose condition would ordinarily be diagnosed as simple goiter is given.

The following classification of the histological conditions has been followed in these studies:

- I. Embryonic (undeveloped) thyroid
- II. Normal (resting) thyroid
- III. Vascular changes.
 - Hyperemia.
 - Hæmorrhage (Including resulting cyst formation)
- IV. Inflammations
 - A. Progressive changes
 1. Hypertrophy (functional, with hyperæmia)
 - Hyperplasia (exophthalmic goiter)
 3. Adenomatosis (multiplication of acini without encapsulation)
 4. Regeneration (of previously atrophic parenchyma)
- VI. Retrogressive changes.
 1. Retention of secretion (colloid goiter)
 - Atrophy (of parenchyma)
 3. Degenerations.
 - a. Colloid (of parenchyma and stroma)
 - b. Hyaline
 - c. Amyloid
 - d. Calcareous.
 - Cystic.
- VII. Tumors.
 - Benign
 - a. Follicular adenomata (non-encapsulated)
 - b. Adenoid adenomata (encapsulated)
 2. Malignant.
 - a. Anethotheliomata.
 - b. Carcinomata
 - c. Sarcomata.

Much of the trouble in interpreting the pathology of the thyroid gland has come from the associated difficulty of definitely grouping the clinical symptoms. Recently however Plummer has sharply differentiated the toxic symptoms of goiter into two clinical groups: (1) toxic exophthalmic and (2) toxic non-exophthalmic. Plummer points out that beside sooner or later exhibiting the symptom of exophthalmos the cases of the first group are acute and in many respects resemble the symptoms of acute alcoholism, while those of the second group are chronic and in many respects parallel the symptoms associated with arteriosclerosis from chronic alcoholism. In this latter group are many cases so mildly or so aberrantly toxic that clinicians in the past have frequently listed them as simple goiters. Plummer suggests that this latter term should be abandoned by the clinician and the term non-toxic substituted for it.

The above conclusions were as follows:

A detailed pathological study of fixed tissue preparations of the thyroids removed from adults and the finding thereby of marked primary parenchymatous hypertrophy and hyperplasia permits the pathologist to diagnose exophthalmic goiter with about ninety five per cent accuracy. At the same time consideration of the data above mentioned will permit him to estimate the stage of the disease in about eighty per cent of the cases, and the severity of the disease in about seventy five per cent of the cases.

A similar study of thyroids from adult patients and the finding thereby of no marked hypertrophy hyperplasia, regeneration of parenchyma will permit the pathologist to diagnose non-toxic goiter with about seventy-five per cent accuracy.

3. The most difficult cases to diagnose pathologically are those of the clinical toxic non-exophthalmic type. While these are of hyperplastic, they may fall into any of the other above-mentioned groups. Our knowledge of these cases is still too incomplete to permit us to draw conclusions concerning the details of their pathology.

4. On the whole, it would appear that the pathologist has quite as much data for the estimation of the clinical symptoms of exophthalmic goiter from the pathological data that can be obtained from a study of the thyroid as he has to estimate the clinical symptoms of Bright's disease from the pathological data that can be obtained from the study of the kidney.

Roussey, G. and Clunet, J. Lesions of the Thyroid in Basedow's Disease (Lésions du corps thyroïdien dans la maladie de Basedow). *Rev. Nécr.* 93, 221. By Journal de Chirurgie.

It is generally agreed that Basedow's disease is due to disturbance of the thyroid, and treatment is directed to the thyroid. There has been great difference of opinion, however, as to just what condition of the thyroid it is that causes the disease.

Rouney and Clunet report an histological study of ten thyroids from patients who presented Basedow syndrome. Three of these patients had true Basedow disease three goiter with secondary Basedowian changes and two thyroid cancer presenting the Basedow syndrome.

In the five cases of true Basedow disease in young subjects in whom exophthalmos, tachycardia and trembling appeared at the same time as diffuse hypertrophy of the thyroid the structure of the gland was found to be homogeneous throughout and to present the following characteristics: (1) Hypertrophy and proliferation of cells which showed a tendency to become cylindrical and to form intracystic vegetations (2) the lumens of the acini were very small filled with chromophobic colloid, and slightly or not at all retractile (3) atrophy of the stroma and (4) in three cases out of five there were true lymphoid follicles in the stroma some of which presented a clear center.

In the three cases of goiter there were found different types of the structure of simple goiters in different areas (cysto-adenoma, simple colloid goiter, follicular goiter and goiter with small acini beginning advanced and calcified scleroses, and myxoid and colloid degeneration of the stroma). On examining

large number of sections however the authors found in all three cases small areas which presented the histological picture of true Basedow's disease.

In the two cases of cancer with the Basedow syndrome the cancer cell as cylindrical thyroid cells, secreting ductile chromophobic colloid.

The authors therefore regard the thyroid picture in Basedow disease as characterized by proliferation of cells, cylindrical-cubical in form and ductile and chromophobic stroma of the colloid. The presence of true lymphoid follicles in the stroma is frequent but not specific.

In true Basedow disease these lesions extend throughout the gland. In the goiter with secondary Basedowian changes, they exist in islands and in thyroid cancer presenting Basedow syndrome they characterize the neoplastic changes.

The Basedowian structure may be observed not only in this disease, but in cases of intense thyroid hyperplasia, or rapid development, such as occurs in normal here compensatory hypertrophy has followed removal of nine-tenths of the thyroid tissue.

These conclusions agree with those of Robens Deval (4 cases) in France of Wilson (20 cases) in the United States of Zander (4 cases) in Germany and of Kocher in Switzerland. J. CURRIE.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Mahler G. L. The Treatment of Recurrence and Metastases from Carcinoma of the Breast. *J. Internat. Cong. Med. Lond.* 9, 1, Aug. 1908. New York: G. P. Putnam's Sons.

This report is based upon thirty of fifteen cases which have yielded good result from treatment with X-rays. The patient have remained well from one to nine years.

In addition to the use of the X-ray, thyroid extract was prescribed in small doses, beginning with one half grain, and being gradually increased to one and half grains three times a day. The addition of the thyroid extract was based upon theories first that as a result of the X-ray treatment, the thyroid secretions are progressively diminished and second, that if the goiter when carcinoma develops, the thyroid secretion naturally tends to diminish.

The treatment described has seemed to increase the nutritive powers of the body and to give better results than were obtained without thyroid extract.

The object of the article is to prove that even advanced carcinoma can be influenced by X-ray therapy and that there should be no hesitation in ordering X-ray treatment immediately after any operation for the removal of carcinoma of the breast, or at the latest, when recurrence is noted.

The X-ray treatment must be thorough the

disease must be treated from as many different directions as possible and the skin must be protected by filtration. Following these directions we may hope for better result in the future.

G. L. Mahler. Penetrating Injuries of the Chest and Abdomen. *Ueb. penetrierende Brustwandverletzungen.* *Arch. f. Chir.* 9, 1, 1908. Berlin: Deutscher Verlag für Chirurgie.

In penetrating wounds of the thorax there are great diagnostic difficulties in determining whether extra abdominal injury also is present. The usual symptoms of such injury are ambiguous. Muscular rigidity for example is found in the beginning of most injuries affecting the lower thoracic region and the diaphragm. A wound of the diaphragm that did not penetrate the peritoneum Guleke noted diffuse muscular defense. The retrogression or increase in these phenomena is more attainable in cases which can be observed for longer period of time. The pulse falls as a diagnostic sign in thoraco-abdominal injuries, because injuries to the pleura itself produce vagus pulse (Sauerbruch-Walther). There is no certain pathognomonic sign of simultaneous abdominal injury in penetrating wounds of the thorax. The diagnosis may be only very probable from the character and nature of the injury. Observation of from three to four hours is of some assistance.

I regard the question as to whether a trans-

pleural operation or a laparotomy should be performed in such cases, Guleke believes on the basis of his experience that in large wounds the operation should be transpleural. After the opening in the diaphragm is enlarged the injured abdominal viscera can be taken care of and the diaphragm sutured. If injury to deeper or retroperitoneal organs is suspected, a laparotomy also should be performed. In narrow and small wound channels produced by a bullet or a fine instrument only laparotomy should be considered. Suturing the diaphragm is not necessary in such cases.

Five case reports given were as follows: (1) Incised wound of thorax and abdomen with protrusion of the intestine laparotomy cure. (2) Thoraco-abdominal puncture, injury to omentum, transpleural operation plus laparotomy suture of diaphragm, later rib resection and pneumothorax because of pneumothorax peritonitis exitus. (3) Percutaneous diaphragmatic puncture (thoraco-laparotomy) healing; the puncture run tangentially to the diaphragm at the rib insertion without injury to the peritoneum. (4) Puncture of chest and abdomen, stomach punctured laparotomy peritonitis exitus. (5) Gunshot wound of thorax and abdomen wound of spleen laparotomy healing.

SCHEUCHER.

Kaefel N. The Treatment of Fractures of the Clavicle (Zur Behandlung des Schlüsselbeinbruchs) *München. med. Wochenschr.* 9, 3, 14, 500. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

For fractures of the clavicle Kaefel recommends a bandage which is applied as follows: The affected shoulder is firmly pulled backward by one assistant and the elbow lifted upward by another. A cotton pad is then inserted in the axilla. The arm is pressed against the thorax and held in this position firmly. The fragment pieces must be well adapted to each other. The point of dislocation is covered with mastisol. Upon this gauze pad is laid. A strip of gauze is then stretched over the pad. A shoulder piece of plaster of Paris, 30 cm long is then modelled around the shoulder and Desault bandage placed over the moist plaster cast. The twists of the bandage are kept from unwinding by mastisol spread upon the skin. The plaster of Paris cast allows the Desault bandage to be applied very firmly and thus the whole dressing is given great stability. The sound shoulder remains free. In the third week the bandage is taken off and massage and exercise are begun.

HILKE.

Drätske Scapulothoracoplasty (Zur Kenntnis der Scapula scapulothoracica) *Zschr. f. d. Erforsch. Behandl. d. Jugend. Schwacherr.* 9, 3, 1, 468. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The deformity of the shoulder-blade described frequently under the name of scapulothoracoplasty has been found by Drätske in 20 per cent of the cases of Hamburg school children and in 3 per cent of cases of children in the reform school. Kellner found it even more frequently in idiots, so that it is

doubtless a sign of degeneracy. Congenital syphilis is not the sole factor (Graves). Other etiological factors are alcoholism, tuberculosis, severe nervous disease of ancestors, and rickets. DUCHENNE.

Boissonnas A Contribution to the Symptomatology and Therapy of Thymus Hypertrophy (Ein Beitrag zur Symptomatologie und Therapie der Thymus-Hypertrophie) *Zschr. f. Kinderheilk.* 9, 3, 17, 47.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

CASE A two-months-old girl of healthy parentage. For three weeks noisy respiration, vomiting, cyanosis, inspiratory stridor: a rounded tumor in the jugulum voice free dullness under the manubrium with corresponding X-ray shadow. Diagnosis Thymus hypertrophy with compression of the trachea. Operation. Complete thymectomy. Weight of thymus gland 20 g. Course. Injury of softened trachea by glass drain followed by severe bronchitis and tracheotomy. Eighteen days after the operation, death from bronchopneumonia.

CASE A boy one and a quarter months old of sound parentage. Since birth, daily attacks of suffocation. Cyanosis, inspiratory and expiratory stridor, dullness over the thymus. Diagnosis Thymus hypertrophy. Operation. Resection of the thymus gland. Patient well after three to four months, with slight signs of rickets.

CASE 3 A girl, four and one half years old, of healthy family. Since second week of life audible respirations, attacks of dyspnea and difficulty in taking nutrition. Cyanosis, inspiratory and expiratory stridor. X-ray treatment. I nine weeks seven X-ray exposures with 3 H.

Of the physical methods, radiocopy and radiography are the most certain for demonstrating thymus hyperplasia. Stridor, vestibularis, congenital stenosis of the trachea, mediastinal abscesses, and enlarged bronchial glands must be excluded. In case of severe symptoms with asphyxia an immediate partial thymectomy should be performed possibly with resection of the sternum. In some cases healing is very gradual because the tracheal rings are soft. Tracheotomy should always be avoided. Intubation gives only temporary relief. In the intermittent forms of thymus hyperplasia, X-ray treatments can be used, but only under clinical observation. At first the condition may become worse. In thymus hyperplasia on a syphilitic basis, specific treatment should be combined with brine baths, which give favorable results. KROCH.

TRACHEA AND LUNGS

Mouret, J. A New Position for Bronchoscopy and Esophagoscopy and Its Advantages over the Classic Position (Une nouvelle position pour bronchoscopie et œsophagoscopie et son avantage sur la position classique) *Tr. Internat. Cong. Med. Lond.* 913, Aug. By Surg. Gynec. & Obst.

As a position for bronchoscopy and esophagoscopy Mouret prefers to have the trunk and pelvis

bent far forward and the head extended. If the bronchoscopy, roentgenography is to be done under local anesthesia, the patient is seated astride a chair. If under general anesthesia he lies in a crowding position on his side.

While in the lateral position (Klamm, Brünings) the lower pharyngeal gland is opened from below, the head being lifted and placed in a forced position by Moynier's method. It is turned from below and the buccopharyngeal gland is opened at the side toward the vertebral column. The pelvis is carried back a few centimeters and the shoulders forward.

The position of the trunk and pelvis is varied from side to side several times. (1) The patient lies in a much less painful position. (2) The operation is performed in front of the patient. (3) The introduction of the tube is easier because the operator is in front of or beside the patient instead of behind as with the vertebral column being stretched. (4) Heretofore, if the patient is in the ordinary position, does not offer a table to the patient.

The thorax has been performed in most bronchoscopies and pharyngoscopies. In this method for tumors of foreign bodies, I saw 1 month before the patient's death of the lower third of the trachea that had been a very terrible view of pharynx. It has removed foreign bodies from the bronchus of children, of eight or nine years of age under cocaine anesthesia. Five photographs and three diagrams figure represent the different types of the operation region.

Lorenz, H. L. Bronchogenic Carcinoma. Das bronchogene Carcinom. (M. J. L. Ch.)

H. Zentr. f. d. ges. Chir. Grenzgeb.

At embryological issues the anoma theories of the mode of development of lateral cervical fistulae and are discussed. The author concludes that the second bronchial left is responsible for the formation of series of lateral fistulae and that therefore these should continue to be called the bronchogenic fistula. Not all lateral fistulae however, develop from the second left. A number according to the author are original from the thymopharyngeal duct. However, this is a two-bronchogenic form (on it is not necessary to give these anastomosis but separate names from bronchogenic anoma). A typical lateral fistula is a small nodule first appears in the neck below the larynx. This condition is incorrect diagnosis is the rule and the possibility of a bronchogenic carcinoma is only rarely thought of.

Locally incision made. This does not heal and the patient rapidly develops incurable. The tumor begins to grow rapidly and infiltrates the underlying tissues. Neuralgic pains radiating in all directions are felt. The regional lymph glands become enlarged and hard nodes may form on the opposite side of the neck. At the operation even in early stages there are found quite regularly adhesions to the sternocleidomastoid muscle and also with the

exterior carotid and its branches which naturally must be excised. Ligation of the anterior carotid often cannot be aided. At times resection of the vagus is expedient. Microscopically the tumor looks like carcinoma of the skin or of the oral mucous membrane.

The diagnosis must be made by exclusion on the basis of the absence of primary carcinomas in other places. The differential diagnosis from carcinoma of the parotid or submaxillary gland is very difficult. It is especially difficult in the latter case because here

metastatic tumor occasionally stimulates neoplasm. The diagnosis from carcinoma of struma is also very difficult. The treatment of this extremely malignant neoplasm is not only radical extirpation of the tumor. It is also an operative procedure the prognosis is favorable. Statistics compelling conclusions are prepared.

Cl. III. 9. M. 111. 1. Operative and Spontaneous Hemorrhage of the Respiratory Passages. (M. J. L. Ch.)
M. J. L. Ch. (M. J. L. Ch.)
M. J. L. Ch. (M. J. L. Ch.)
M. J. L. Ch. (M. J. L. Ch.)

The prognosis of the pituitary gland has been shown to be very useful in prolonged lateral view of the uterus and in hemorrhage of the uterus because it causes progress and perhaps the interruption of the uterine muscle fibers from the uterus. It is included that perhaps it might be good results spontaneous and operative hemorrhage of the respiratory passages especially in resection of the inferior turbinate. If exposure of the aqueous extract of the posterior lobe of the hypothalamus is considered.

The thoracic cavity for spontaneous hemorrhage (spontaneous hemorrhage from the mouth) and now in hemorrhagic diathesis, if a bronchoscopic operation can be used for resection of the larynx. Bronchoscopic resection of the septum nasal polyps operations on the nasal vessels, tracheal tumors. Almost all of these the result is excellent. If injected with carbolic acid beneath the skin or into the muscles, a quarter of an hour before the operation is begun and after the operation the hemorrhage is light and he is spared much suffering and upon the nose. If necessary, an incision may be made after the operation.

HEART AND VASCULAR SYSTEM

Leporelly. A Case of Prolonged Contraction of Heart Action Resulting from Needle Injury to the Heart (M. J. L. Ch.)
M. J. L. Ch. (M. J. L. Ch.)
M. J. L. Ch. (M. J. L. Ch.)

The author describes the case of a man 6 years of age who fell down on his breast and ran

needle into the left half of the thorax. The patient was brought to the clinic at once. At that time he was pale and every movement of the hands caused pain. The needle could be felt in the second intercostal space. It moved up and down synchronously with the pulse. Auscultation and percussion revealed nothing abnormal. The pulse was regular but somewhat rapid.

The needle was removed under local anesthesia. The instant it was removed the patient ceased breathing and immediately afterward the pulse stopped. All possible resuscitatory measures were undertaken and at the end of twenty minutes the pulse could be felt again. In five minutes it stopped a second time but reappeared again in little while. This was repeated twice.

The author believes that the phenomena noted were caused not by needle prick of the heart itself but by a needle scratch of the epicardium when the needle was withdrawn that stimulated the inhibitory apparatus of the heart. The same result he has produced experimentally. J. W. W.

Dean, G. and Falconer, A. W. Primary Tumors of Valves of the Heart. *J. Pathol. & Bacteriol.* 93, xviii No. By Surg. Gynec. & Obst.

The authors report a case of tumor of the pulmonary valve, discovered at autopsy in male, fifty-three years of age who died of rupture of a calcified aneurysm of the aorta. During his life there had been no clinical signs to suggest pulmonary valve disturbance. The tumor pedunculated the size of a raspberry rose from the ventricular cusp of the pulmonary valve. It was otherwise entirely normal. Microscopically the tumor consisted in part of myxomatous tissue and in part of hyaline connective tissue. It was covered by endothelium and was without vessels. The thorax collected from the literature thirteen cases of heart valve tumor of similar structure: three pulmonary, three aortic, five tricuspid, and two mitral. They discuss at some length the pathology of the growths and the varying views that have been expressed as to their nature. H. B. Loomis.

Delagenière, H. Pericardiolytis in Certain Diseases of the Heart or Supercardiac Thoracotomy (De la péricardiotomie dans une certaine affection cardiaque ou de la thoracotomie supracardiacque). *Arch. prov. de Chir.* 93, xvi 37. By Journal de Chirurgie.

Delagenière describes an operation that he calls pericardiolytis, and which consists in freeing the anterior surface of the pericardium by resecting the part of the thoracic wall that covers the pericardium. This enables the heart to contract in its normal

rhythm and sweep even if there are adhesions between the heart and the pericardium. If heretofore only limited resections had been performed, involving portions of the third, fourth, fifth, and even the sixth ribs where they came into relation with the pericardium. Only once had a transverse section of the sternum been removed (Thornburn).

Among thirty-eight cases published there had been only one death from operation: thirty-one successful cases, and six failures. In all of the unsuccessful cases there were valvular lesions. The lack of success may have been due to the fact that the operation was not extensive enough and did not alter the cardiac action sufficiently.

Delagenière describes his own case that of a woman twenty-eight years of age with severe cardiac lesion involving the right side of the heart as shown by cyanosis of the lower limbs and a true venous pulse.

Under chloroform anesthesia a skin incision was made outlining a flap which covered the whole precardiac region. A hole was bored in the lower end of the sternum and the skin incision followed. The sternum, the cartilages, and left ribs, the sternum again above, and the false ribs on the right were resected in succession. The flap was raised and detached from the pericardium and pleura. As soon as the flap was removed the heart bounded into the field of operation, and, striking on the upper intraclavicular notch of the sternum, caused asphyxiation. Three more centimeters were removed. The heart then seemed to beat with less difficulty and respiration was normal. The patient was able to get up on the fifteenth day. Before the operation she could do nothing. She now does her daily work as charwoman and has cyanosis or edema. On inspection the rise and fall of the heart on pulsation can be easily seen. The pulse is 73 and regular. Arterial tension is normal.

The author believes that all cases of adherent mediastino-pericarditis should be treated surgically. Often they follow purulent pleurisy and sometimes tubercular pleurisy. In these cases simple resection of from about nine centimeters of the fourth, fifth, and sixth ribs may suffice. In adherent pericarditis following acute pericarditis with or without valvular lesions, however, only the extensive operation described by Delagenière frees the heart and great vessels completely. This operation is indicated also in ill-defined cardiac disease with without valvular lesions when there are signs of stasis, a involvement of the right heart.

The case described belongs in this category and ten years after the operation the patient expresses herself as delighted with the result.

GEORGE LARRY

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Petroff, N. N. *Experimental Contributions on the Subject of Abdominal Drainage* (Experimentelle Beiträge zur Frage der Bauchhöhle-Drainage). *Chir. arch. Internat.* 1914, 1, 11, 5.
By Zentgraf, J. d. ges. Chir. Greifswald.

The author has dealt with the question as to whether drainage or tampon introduced into the abdominal cavity is capable of guaranteeing good drainage or whether the drain is once organized and separated from the free abdominal cavity by adhesions. His method of determining this was as follows: At incision or drainage the tampon was placed in the artificial infected peritoneal cavity of a rabbit. After one to three days, Berlin blue was injected into the abdominal cavity as far as possible from the site of drainage. The tampon or tampons were then removed. If the coloring matter did not appear the course of an abscess was killed and an autopsy was performed. The following results were obtained: In the first animal permanent adhesions developed at the abdominal incision, but the tampon was not pulled out. The free peritoneal cavity was then from five to six hours and more later from fifteen to twenty-four hours. This depends on the formation of adhesions and the tampon. The growth properties of the gauze tampon introduced into the infected peritoneal cavity were then tested in the tampon loops but only in the tampon loops. The growth properties of the gauze are just as apparent as the separation of the tampon. With great gusto, the author noticed that the coloring fluid flowed out of the tampon and that the gauze itself did not draw off the fluid. He also noticed that part of the tampon which was adjacent to the margin of the wound was of blue color. The deeper part of the tampon was surrounded by adhesions and lay against the abdominal organs, mucous foreign bodies. The conclusion for practical surgery is that tamponade is of limited value in the case of hemorrhage and that in certain regions of the peritoneum but not suitable for purposes of drainage. For the latter it is sufficient to introduce very short tampons into the peritoneal cavity. Rubber drainage tubes formed fewer adhesions, but the tampons are frequently occluded by the intestines. In the presence of exudate the dye drained off even after fifteen hours. In the case of glass drains no isolating adhesions were noticed up to the forty-eighth hour. Petroff discovered that surrounding the drainage tube the gauze as practiced by many surgeons, paralyzes the suction power of the drain. On the other hand, the introduction of gauze into the lumen of the tube of the gauze is frequently changed, is designated as rational, because it increases the suction. On the basis of these experiments the author concludes that

drainage of the free peritoneal cavity is possible at least in the first forty-eight hours. The best drainage material is glass drains. Hines.

Allen, L. W. *Ileo-Appendicular Hernia of the Appendix*. *Surg. Gynec. & Obst.* 1914, 18, 2, 174, 9.
By Surg. Gynec. & Obst.

The author reviews the history and development of the pericolic folds and focuses generally the anatomy and pathology of the ileo-appendicular fossa, particularly with special reference to hernias of the appendix. The latter, though rare, is a case found in the literature by Allen.

Morison's classification of the pericolic folds and fossae clears up the confusion of the past. The primary folds are (1) the ileocolic or anterior vascular fold, (2) the accessory ileocolic fold, (3) the ileo-appendicular fold, and (4) the meso-appendix or posterior vascular fold. The fossae formed by these are (1) the ileocolic fossa, (2) the accessory ileocolic fossa, and (3) the ileo-appendicular fossa. Secondary fossae are dependent upon secondary physiological adhesions.

In describing the ileo-appendicular fold, Allen states that it contains muscle fibers. To these Luschka ascribes its origin. Morison, on the other hand, considers the ileo-appendicular fold to be both muscular and vascular and bases his view upon the embryological development.

The ileo-appendicular fossa is subject to pathological conditions, cysts and hernias. The hernias are dependent upon the size of the opening, the firmness of the edge, and the condition of the latter, plus abdominal pressure.

Von Wistinghausen. *Retrograde Incarceration of the Intestine in Hernia* (Über retrograde Darmeinklemmung bei Bruch). *Deutsche Zeitsch. f. Chir.* 1914, 83, Zentgraf, J. d. ges. Chir. Greifswald.

In 1895 Meckel declared that retrograde incarceration as possible only in organs that end blindly, such, for example as the appendix, and that there is no possibility of retrograde dislocation of the intestinal coil as the coecum of the mesenteric pump course perpendicular to the long axis of the bowel and do not pass the hernial sac. This has been shown to be erroneous. Retrograde incarceration, as is well known, the outgoing and incoming loops of bowel are caught in the hernial sac. While the portion of mesentery that connects the loops, the so-called middle piece, lies free in the abdominal cavity. There are three possibilities for the development of retrograde incarceration. The retrogradation of the middle piece, as it is forced back in the reposition, or the entrance of it or more intestinal loops into the hernial sac either simultaneously or successively, thereby the middle piece remains in the abdomen. There are cases

high the coils lying in the hernial sac are healthy and without constrictions, while the middle piece is gangrenous. In other cases the hernial loops may be slightly or severely injured, with moderate to severe damage to the middle loop. Finally there may be gangrene of all of the loops or marked alterations in the hernial loops, with slight or no injury of the mid piece. The mesentery of the mid-piece may not be incarcerated, while the latter is completely gangrenous, or the mesentery may show visible alteration, even though it lies quietly in the abdominal cavity. Experiments on the dæmon have shown that in such incarcerations the mid-piece if distended with gas, becomes sharply kinked whereby a constricting ring forms, the mesentery (Zogariade) in this sharp angle the vessels become kinked and nutritional disturbances to the intestine result. The author however was not able to make the same findings. Experiments on the intestine of dogs showed that gangrene occurred only when the mesentery of the middle part was drawn into the hernial opening. In spite of the object that it cannot be assumed that there is enough space in the hernial opening for the intestine to push into the abdominal cavity alongside of an incarcerated loop, etc., the author believes that kinking of bowel, even though very small forces may arise amid the loops through the hernial opening as a result of peristalsis. The resulting distension produces traction, which continually draws new intestine into the abdominal cavity whereby the mesentery remains at first in the hernial sac and only the parts that are next to the intestine enter the abdominal cavity. At times as a result of high grade tympanites the whole mesentery may be pulled out of the hernial opening. The author does not consider as retrograde incarceration the prolapse of the intestinal loops in which the connecting loop is not injured materially. In cases in which retrograde incarceration or hernia duplex is suspected, he warns against attempts at reposition.

R. W.

Laplace E. Thrombosis of the Mesentery. *J. Internat. Cong. Med. Lond.* 1903.
By Surg. Gynec. & Obst.

Thrombosis of the mesentery with its uncertain clinical symptoms is due to an infection which results in a thickening of the mesentery and its blood vessels followed by thrombosis and gangrene of the gut. The infection may be local or may have spread from neighboring focus.

Infection of the febrile or afebrile type is also accountable for the various forms of phlebitis which occur about the external iliac vein and result in the well-known post-operative edema of the extremities. The infection is uniform on the right and left sides but will manifest itself at first on the left side on account of the fact that the left iliac artery overrides and compresses the left iliac vein.

The afebrile type of infection may likewise be responsible for such thrombosis which when finally

loosened, results eventually in pulmonary embolism. In order to guard against this subtle form of infection in post-operative treatment of all abdominal cases, a 500 solution of citric acid in water should be administered by the Murphy rectal drip method as a prophylactic.

GASTRO-INTESTINAL TRACT

Holland C. T. A Method of Obtaining a Radiograph of the Stomach at Any Particular Phase of Its Contraction. *Arch. Radiol. Ray.* 9, 3, xviii, 98.
By Surg. Gynec. & Obst.

In a single paragraph is described a practical method of obtaining a radiograph of the stomach at any desired phase of its cycle. The phase desired is found by fluoroscopic observation. By this method also is obtained the number of seconds required for the stomach to complete its cycle which is usually twenty. By observing stop-watch that is started at any phase we may determine exactly just when the radiograph of that phase should be taken, as it will return at any multiple of twenty seconds.

HOLLIS E. POTTER.

Georg A. W. The Positive Value of the Röntgen Method in the Diagnosis of Gastric and Duodenal Lesions. *J. Am. Surg. Ass. Soc.* Boston 9, 1, Oct.
By Surg. Gynec. & Obst.

The positive or exact method of roentgen diagnosis of duodenal ulcer depends upon the adequate demonstration on plates of the anatomical condition of the duodenum. This is opposed to the method of diagnosis by "symptom-complexes" of increased gastric peristalsis, hypermotility, gastric stasis, relaxed pylorus, etc. These complexes are only inferential in their evidence, and never positive.

Ninety five per cent of duodenal ulcers occur in the first portion of the duodenum.

3. The first portion of the duodenum is anatomically constant entity. Germain examined the duodenums of four hundred cadavers and found the first portion always constant in shape, contour and general characteristics, unless actually diseased.

4. If the first portion of the duodenum is normal it can be demonstrated by the bismuth method upon plate. It will be seen as a cap with a characteristic shape and smooth outline. In every normal case it can always be demonstrated upon plates by using some one of the three positions—prone, standing, or lateral. There is no exception to this rule. Apparent exceptions are due to improper technique, and especially to too much reliance upon the fluoroscopic examination.

5. The constant presence upon a series of plates of a constant defect or abnormality in the cap means positively a pathological condition in the duodenum. This may be due to indurated ulcer adhesions, gall-bladder disease, spasm, etc., which require a differential diagnosis.

6. Every duodenal ulcer which is more than a simple mucous membrane erosion will deform the contour of the blank in the cap. This deformity is due not to the minute mucosal defect, but to the much larger callus which involves the submucosal and muscular coats.

7. The demonstration of a normal duodenal cap upon plate definitely rules out the possibility of indurated or surgical duodenal ulcer.

Oiland, J. H. Skinner E. H., and Clendenen, L. A Study of the Mastication of the Stomach after Gastro-Enterostomy by Means of the X Ray. *Surg. Gynec. & Obst.*, 9, 2, April, 15.
By Surg., Gynec. & Obst.

The authors studied the physiology and mechanism of digestion by means of the fluoroscope and the X ray in six patients upon whom gastro-enterostomy had been performed. They attempted to determine in particular whether after gastro-enterostomy the food leaves the stomach by way of the pylorus or the stoma, and the rate at which the stomach is emptied. The examinations were made from three weeks to three years after the operation had been performed.

In all cases it was found that the stomach was drained by the gastro-enterostomy stoma. In four the food left by the gastro-enterostomy opening exclusively and in two by both the stoma and the pylorus. The rate of emptying was reduced.

The conclusions drawn from this study are as follows: (1) Gastro-enterostomy performed properly is a drainage operation. (2) After gastro-enterostomy if the stoma is at the lowest part of the stomach in the erect position, the food leaves the stomach almost exclusively by the gastro-enterostomy opening. (3) Under these conditions the stomach is emptied very rapidly. (4) Gastro-enterostomy should be performed only in cases of pyloric stenosis or pyloric spasm due to duodenal or gastric ulcer. (5) The gastro-enterostomy opening should be large and placed as close as possible to the pyloric antrum. (6) When the gastro-enterostomy opening does not quite drain the stomach, the food leaves by way of both the stoma and the pylorus. Even in these cases, however, the stomach empties itself more rapidly than the normal stomach. (7) Clinical failures after gastro-enterostomy are due probably to faulty implantation of the stoma.

Cole, L. G. Diagnosis and Differential Diagnosis of Gastro-Duodenal Lesions. *J. Am. Med. Assoc.*, Boston, 9, 3, Oct.
By Surg., Gynec. & Obst.

Cole claimed that by making several series of roentgenograms of the stomach with the patient in the prone erect and lateral positions at various intervals after the ingestion of bluish and butter milk, he can make positive or negative diagnosis of gastric ulcer, indurated ulcer of the stomach, or duodenal ulcer and that where cholecystitis is associated with adhesions, he can detect the evidences of the adhesions.

His remarks were largely extracts from previous communications based on personal experience in 576 cases. He demonstrated the appearance of the normal cap (pilus ventriculi) and described the physiology of the pylorus as observed roentgenologically and used these normal cases as controls to show the difference between extensive malignant and non-malignant lesions of the stomach.

He recognized his inability to differentiate between early carcinoma and indurated gastric ulcer but stated that in these cases surgical procedure is indicated regardless of whether the clinical history corroborated the roentgenological findings, and that the lesion should be considered malignant until proven otherwise by microscopical examination of the specimen after its removal. In such cases the surgeon does not know whether he has cured an early carcinoma or prevented one until he receives the pathological report.

Carcinomas too extensive for removal are readily recognized, and unnecessary surgical procedure may be prevented. Such cases do not require a long series of roentgenograms.

This communication centered around the negative and positive diagnosis of duodenal ulcer or as the author preferred to call it, post-pyloric ulcer. Cole stated that if a single roentgenogram out of 40 showed symmetrical cap corresponding in contour with the pars pylorica, and if the pyloric sphincter was clear-cut and functionated in a normal manner (previously described) we are justified in making a negative diagnosis of duodenal ulcer of the cap, 95 per cent of which occur in this portion of the tract.

The positive diagnosis of duodenal ulcer or extensive adhesions from cholecystitis may be made with remarkable accuracy. Ulcers with cicatricial contractions may not always be differentiated from the extensive adhesions usually accompanying cholecystitis. This differentiation, however, is of more scientific interest than practical value because in either condition surgery is indicated if the symptoms are sufficiently characteristic.

The author recognized spasmodic contraction of the cap and pylorus caused by lesions at other points in the abdomen, particularly those at or near the cecum (kinks in the ileum, psoasitis, mobile cecum, etc.) and stated that care should be exercised to avoid mistaking these spasmodic contractions for organic lesions. Sometimes confirmatory series of roentgenograms after the administration of belladonna is necessary to differentiate between spasmodic and organic lesions of the cap or pylorus.

In conclusion Cole stated that by studying individually and collectively a large series of roentgenograms and matching them over each other one can make diagnosis of early carcinoma of the pars pylorica, indurated ulcer of the stomach, and duodenal ulcer with that of cholecystitis.

The discussion centered around the expense necessitated by serial roentgenography and the relative value of roentgenoscopy and serial roentgenography. The way in which serial roentgenography can be employed among the masses is the aim in which surgery is employed, each patient paying according to his means.

The consensus of opinion was that use should be made of both that where a positive diagnosis (usually of extensive lesion) can be made by roentgenoscopy serial roentgenography is unnecessary but that in all doubtful cases serial roentgenography is absolutely essential before one is justified in making a negative diagnosis of gastric or duodenal ulcer or carcinoma.

Price, A. H. Indications Afforded by X Rays for and against Operations in Diseases of the Stomach and the Results of Such Operations. *T. Am. Radiol. Soc. Boston*, 9, 3, Oct. By Surg. Grover & Obit.

The author gave his experience in cases which a diagnosis had been established or confirmed by roentgen rays in diseases of the stomach, and cited the results obtained by surgical and medical treatment. He reviewed the following subjects:

1. Chronic gastric ulcer. Slides were shown illustrating the ulcer filled with barium sulphate and with the bubble of gas above the ulcer. Two slides showed the ulcer filled with barium when the rest of the stomach had been emptied. Price advocated shutting off the ulcer by tying a band of fascia tightly around the stomach above the ulcer and anastomosing the jejunum to the lowest part of the cardiac end of the stomach.

2. Acute gastric ulcer indicated by spasm opposite the ulcer and gastric stasis. Operation was not resorted to in such cases.

3. Early carcinoma. The author described cases in which carcinoma had not been suspected on clinical grounds but unremovable carcinomas were found by roentgenograms.

4. Late carcinoma shown by X rays to be irremovable.

5. Cardiac stenosis, mistaken for pyloric stenosis prior to X-ray examination.

6. Pyloric stenosis, when due to duodenal ulcer does not show finger-like indentations such as are present when it is due to carcinoma.

7. Gastropyloritis. The patient's symptoms were not relieved by operation and elevation of the stomach. The author advocated gastroenterostomy as in all cases in which the food escaped quickly from the stomach he found that the stomach was small and high.

8. Tumors pressing upon the stomach. Slides were shown of distortions of the stomach by pancreatic cyst and enlarged spleen.

9. Adhesions about the stomach and pressure by surrounding organs.

10. Normal stomachs, pronounced normal by X-ray examination and found so at operation.

Price believes that the roentgenologist should advise the patient not only for or against operation but also in regard to diet and times for eating.

Henle, A. Experiences in the Surgical Treatment of Benign Affections of the Stomach and Duodenum (Erfahrungen bei chirurgischer Behandlung gutartiger Affektionen des Magens und Duodenums). *Verhandl. d. Gesellsch. deutscher Naturf. Arzt.* 9, 3, H. 44.

B. Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Two cases of tuberculous duodenal stenosis were healed by gastro-enterostomy with K. Ling's closure of the pylorus. In both cases the roentgen examination failed inasmuch as it showed in the one case only pyloric stenosis and in the other a pyloric and a high grade duodenal stenosis. In ten cases of typical ulcers of the duodenum, pyloric exclusion and separation of the stomach was performed with eight cures. In two cases, ulcer symptoms, i. e. hemorrhages, reappeared after the operation.

In the one these were transitory, the other a second laparotomy had to be performed five and a half years later. A kink and stenosis of the small intestine by adhesions were found 5 cm. below the gastro-enterostomy and a ulcer in the latter which required resection and new gastro-enterostomy. Extent. The post-mortem examination showed complete cicatrization of the old ulcer and an atrophy of the various typical gastric glands in the excluded portion of the stomach removed by the resection.

1. Pyloric exclusion. The stomach may be severed in the provided part. In this region the operation can be performed much more easily and without fear that the isolated portion of the stomach will continue to produce hydrochloric acid which would keep the duodenal ulcer open. Possibly recurrences observed soon after operation are due to temporary continuation of the hydrochloric acid secretion.

Henle has occasionally attempted exclusion also in painful ulcers of the pylorus. This he has done in twenty-four cases, in which there were only four deaths. Two of the deaths, however, were not ascribable to the operation. Simple gastro-enterostomy he has performed in benign gastric affections fifty times with only three deaths. Among these were five gastro-duodenostomies, which Henle would prefer if they were not so difficult to perform through the median incision. In all but two cases a posterior retrocolic gastro-enterostomy was performed. In only two cases this led to the development of peptic ulcer. Peptic ulcer occurred also in one of the two cases of anterior gastro-enterostomy and required repeated operations for a cure. The author has never attempted transverse resection in benign gastric affections, but has made wedge-shaped resections and typical pyloric resections in five cases each. Two of the former patients died and all of the latter were cured.

The author concludes that in gastric diseases that are undoubtedly benign the operations should be those that give the most favorable prognosis.

In the discussion following Henle's paper Schmiehlen stated that simple ligation with additional sutures over the pylorus lead again later to permeability, that the radiological diagnosis of duodenal ulcer is difficult and that peptic ulcer occurs almost exclusively in anterior gastro-enterostomy. In hour-glass stomach transverse resection is indicated. In solitary ulcers far from the pylorus a simple gastro-enterostomy is insufficient. Roepke recommended in pyloric exclusion, the separation of the stomach rather far proximally. He prefers a transverse rather than a partial resection. In post-operative hemorrhage he has employed successfully the injection of 50 ccm. of diphtheria serum with the addition of one injection of secalorin. Dreermann has determined experimentally that a thread tightly knotted around the pylorus gives permanent closure. Excess ulcers of the lesser curvature he sutures in a longitudinal direction thereby avoiding a linking of the stomach.

BREITANO

Einhorn, M. Indications for Duodenal Alimention (Indikationen für die Duodenalernährungsmethode). *Deutsche med. Wochenschr.* 9, 5, 1914, 1404. By Zentralblatt für Chirurgie.

By duodenal feeding is understood the nutrition of patient while the stomach remains empty. This is made possible by introducing into the stomach small siber tube which then enters the duodenum. In a normal person it requires from two to three hours for the beginning of the sound to reach the duodenum. In patients with pylorospasm longer time is necessary. Thirty-six hours is the longest time observed by Einhorn. Nourishment is given every two hours (8 times a day) and consists chiefly of milk, eggs, and one teaspoonful of lactose. One to two teaspoonful of butter may be added to every second meal.

The author first used an irrigator to inject the nutritive fluid but now uses syringe with a triple stopcock to test to determine whether the sound has reached the duodenum, the fluid is sucked up out of the sound. If the fluid comes from the stomach it is acid, if from the duodenum it is alkaline. A colored fluid may be given by mouth to find out if it can be aspirated through the sound. The nutritive fluid should always be at body temperature. As the sound must remain in place long time it is important to clean it after every feeding with water and air to prevent obstruction. In addition to the food Einhorn introduced about one liter of physiological salt solution daily.

In the last three and a half years the author has used duodenal alimentation in eighty-four patients, in each case an average from ten to fifteen days. The indications for this method of treatment are: (1) Ulceration of the stomach and duodenum, (2) gastric dilatation without organic obstruction marked atony with and without pylorospasm, (3) nervous vomiting and the vomiting of pregnancy, (4) diseases of the liver to limit the blood supply to the

portal vein and (5) inoperable carcinoma of the stomach and cardia without stenosis. Koca.

Paterson H. J. The Physiology of Gastro-Jejunostomy. *Internat. Cong. Med., Lond.* 1913, Aug. By Surg., Gynec. & Obst.

The prevailing view is that gastro-jejunosomy is drainage operation. Paterson gives reasons why it should be regarded as physiological operation.

Bile and pancreatic juice are present in the stomach almost invariably after gastro-jejunosomy.

The evidence of this is, that there is an almost constant increase in the mineral chlorides of the gastric contents after gastro-jejunosomy (99 per cent of the author's cases).

This occurs although there is, as a rule (75 per cent of the author's cases) diminution of the total chlorides.

After undoing gastro-jejunosomy this increase in the mineral chlorides disappears again.

Illustrative case No. 1 gastric analysis.

Before gastro-jejunosomy	
Total chlorides	420
Free HCl	051
Protein HCl	89
Mineral chlorides	080

After gastro-jejunosomy	
Total chlorides	365
Free HCl	000
Protein HCl	52
Mineral chlorides	

After the gastro-jejunosomy was undone.

Total chlorides	342
Free HCl	8
Protein HCl	270
Mineral chlorides	55

If an entero anastomosis is performed as well as gastro-jejunosomy this increase in the mineral chlorides is not observed.

Illustrative case No. 2 gastric analysis.

Before gastro-jejunosomy	
Total chlorides	335
Free HCl	003
Protein HCl	78
Mineral chlorides	56

After gastro-jejunosomy and entero anastomosis	
Total chlorides	0 590
Free HCl	000
Protein HCl	26
Mineral chlorides	124

This increase in the mineral chlorides does not occur as a rule after other operations, e.g. after appendectomy. Therefore the inference is that it is due to the entrance of bile and pancreatic juices into the stomach through the anastomotic opening.

The average increase in the mineral chlorides in the author's cases is 0.77 per cent.

Bile and pancreatic juices contain about 0.5 per cent of sodium chloride therefore, after gastro-jejunosomy the gastric contents contain less than 50 per cent of bile and pancreatic juice, the amount of bile being less than 5 per cent.

Effect of gastro-jejunostomy on gastric secretion. The total acidity is lowered the average diminution being 30 per cent. This is due partly to neutralisation by bile and pancreatic juice and partly to diminished secretion.

Effect of gastro-jejunostomy on the motility of the stomach. In the absence of pyloric stenosis gastro-jejunostomy slightly hastens evacuation of the stomach but the acceleration is not sufficient to account for the beneficial effect of the operation. This is against the view that gastro-jejunostomy is a drainage operation.

Effect of gastro-jejunostomy on gastric digestion. Gastric digestion is impaired but not lost after gastro-jejunostomy. The impairment seems to be due to loss of free hydrochloric acid.

A report is given of observations made upon patients that were placed upon Schmidt diet after gastro-jejunostomy and of observations obtained with the red carmine fibrin test.

Effect of gastro-jejunostomy on metabolism of human body. Gastro-jejunostomy has no material effect on the metabolism of the human body. The investigations of Riley and Goodbody on the metabolism of healthy individuals gave the following results:

Per Cent of Intake

Highest absorption of nitrogen	97
Lowest absorption of nitrogen	90
Average (75 cases)	93.46
Highest absorption of fat	98.5
Lowest absorption of fat	90
Average (9 cases)	95.5

In twelve patients on whom gastro-jejunostomy had been performed, the author found that in every instance the amount of nitrogen and fat absorbed were within these limits.

Conclusions

1. A certain amount (less than 10 per cent) of bile and pancreatic juice enters the stomach after gastro-jejunostomy.

2. The total acidity of the gastric content is diminished, on an average by 30 per cent. This is due partly to neutralisation of free hydrochloric acid by bile and pancreatic juice and partly to earlier stimulation of the pancreatic secretion and compensatory earlier lessening of the gastric secretion.

3. Gastric digestion is impaired but not lost after gastro-jejunostomy.

4. The motility of the stomach if there be no pyloric stenosis, is for practical purposes unaffected by gastro-jejunostomy.

5. Gastro-jejunostomy has no material effect on the absorption of nitrogen and fat. This chemico-pathological evidence is supported by the evidence of clinical experience.

The author concludes that gastro-jejunostomy is a physiological, and not a mechanical operation. Probably the most important result of this operation is that bile and pancreatic juice in small quantities gain entrance to the stomach.

Practical lessons

Occlusion of the pylorus is an unnecessary complication of gastro-jejunostomy.

Excision of simple ulcers is unnecessary if gastro-jejunostomy be a physiological operation.

The view that malignant degeneration of gastric ulcers is frequent after gastro-jejunostomy is contrary to clinical experience.

Eastman J. R. *Fetal Peritoneal Fold and Their Relation to Postnatal Chronic and Acute Occlusions of the Large and Small Intestine* *J. Am. M. Ass.* 913, 12, 635.

By Surg. Gynec. & Obst.

The author describes several peritoneal fetal folds of fairly constant form and distribution and shows their latent possibilities in regard to occlusions of the large and small intestine.

The position and attachments of certain of these folds suggest that they may be causative factors in gravitations and regulations of the terminal ileum. The genito-mesenteric fold of Reid which passes from the mesentery of the terminal ileum down into the pelvis to the genital gland, for example bears an interesting resemblance to the iliopectineal band in the adult which Lane believes is one of the chief causes of a downward kink in the ileum.

As Reid fold is continuous above with the duodenojejunal ligament it is possible that, by contracting it may cause an upward kinking of the terminal ileum. This may be true also of the rather constant ileocolic folds and the so-called root folds.

The author found Reid fold in fourteen of thirty-two fetuses and also in the adult. He suggests that Lane's iliopectineal band and Reid fold are identical and that it may have been formed by the dragging down of the dorsal peritoneum in the descent of the right ovary or testis.

In regard to the bloodless fold of Treves, Eastman states that there is considerable evidence to show that this fold begins as an adhesion between the cecal head and the mural peritoneum and that at the time of cecal torsion the serosa of the peritoneum of the lateral abdominal wall is drawn over the caput to form a pocket-like fossa containing the caput and the appendix. The pericolic fold is formed by similar fusion and torsion at a higher level of the ascending colon.

Another rather common fold that may bind down the cecum and the appendix is described as being of a skirt-like form. It passes from the terminal ileum above, downwards around the basal half of the appendix, and then upwards to blend with the serosa of the caput.

The adhesions of the colon to the peritoneum of its own mesentery also are believed to be persistent fetal adhesions.

This article is closed with the report of a thoracic case in which an extensive formation of pericolic membrane led to an acute and complete obstruction of the ascending colon. The division of the mesentery resulted in recovery. *PHILIP M. CHASE.*

8 mmers, J. L. Surgical Aspect of Intestinal Stenosis from an Anatomic Point of View. *J. Am. M. Ass.* 9.3.25, 630.

By Surg. Gyrec. & Obst.

The author concludes from his experience that the membranes of the peritonic type of Jackson may be found in every abdomen either on the right side or in the lower left quadrant that the symptoms, as a rule, are produced in distention and appear usually after the fifth year of age and that prior to the time of the beginning of the symptoms, there is never any sign of anything wrong that can be attributed to the membranes; the latter should be regarded, on the whole as purposeful and not offensive. If it is felt that these membranes may become offensive early, they should be considered congenital defects the same as a cleft palate or extra toes. They may also become restrictive instead of covering or constricting the base of the caecum and colon with resulting loss of tone. When the intestinal symptoms are not relieved by treatment the case should become surgical.

The operation of McKeown and the recommendation to resect the intestine in eight cases operated upon by the author. Summers recommends also the plicies of the transverse colon by the technique of Coffey.

He advises releasing these congenital membranes when they are restrictive. A rule this should be done at their lowest line of attachment. In other cases that require greater mobility of the colon however, it should be done at the line of attachment of the peritonic membrane and parietal peritoneum which invariably occurs at what line when tension is made on the viscera (the direction of the fibres and blood vessels). *Parity M. Case.*

Tiebornoff, I. A. Inflammatory Diverticula of the Appendix. *Zur Frage der entzündlichen Divertikel des Wurmfortsatzes.* *Frank. Ger. Zts.* 6.3. By Zentralbl. f. d. ges. Chir. *Lernbach.*

The author reports six cases of appendicitis. In the appendix there were found typical diverticula. The appendix, formed from the mucous membrane that bulged through defect of the muscularis. In one case the art. of the perforation of the diverticulum could be demonstrated. The other the mucosa was markedly trophic and thin. The wall of the appendix showed very marked inflammatory changes. In both cases increased intra peritoneal pressure as indicated in one case the lumen (instead of being dilated) as plainly dilated and the whole mucosa was thinned. Another case there as external trophy of the mucosa. After searching examination of the literature and the basis of his own observations the author assumes that the diverticula are the give cases developed from an inflammatory basis as the result of circumscribed lesion of the muscular wall and additional increased pressure in the appendix. It regards diverticula as of considerable clinical significance because they can readily be retained; there mucus and bacteria

high may cause a recurrent acute inflammatory process, and further because diverticula lead to perforation. Finally the author points out the fact that pseudomyoma of the peritoneum may be caused not only by rupture of ovarian cysts, as formerly supposed, but also by rupture of cysts and diverticula of the appendix. *Von Hoyer.*

Kort, W. The Operative Treatment of Malignant Diseases of the Large Intestine, Especially the Rectum. The operation. *Behandlung der malignen Divertikulose des Rectums.* *Z. Internat. Chir. Med. Lond.* 9.3.25. *By Surg. Gyrec. & Obst.*

The author based his paper upon his own material, 54 cases in all and the reports that have been published in the literature since 1900.

The mortality of the radical operation is still quite considerable amounting to 757 cases. The literature of 3.1 per cent. The 83 radical operations performed by Kort since 1900 yielded a mortality of 9.0 per cent. The mortality figures of the last decade show some but better results.

The particular dangers arise from collapse and peritonitis, and these are caused by the peculiar anatomical conditions of the large intestine and the difficulties that arise from the intestinal contents.

Acute occlusion of the intestine is very frequent complication of a morbid of the large intestine occurring about 35 per cent of the cases. In this condition the attempt must first be made to evacuate the intestine (resection or colostomy). The radical operation should be secondary (several stage operation).

When sufficient evacuation of the bowels, good blood supply of the extremities of the intestine and the possibility of approximating them without stretching them reposition and suture in one stage is the best procedure.

The peculiar anatomical conditions of the different part of the large intestine demand corresponding different methods of operation. The prognosis for permanent cure in cases of carcinoma of the large intestine is relatively favorable. Kort reports cures lasting from three years to twenty-one years in 77 per cent of the cases of radical operations or 30 per cent of the survivors.

Of the palliative operations antero-anastomosis is the best method in the absence of intestinal obstruction. Colostomy or ileostomy is the first method for cases of intestinal obstruction. Radical operations (colectomy or entero-anastomosis) must be secondary and should be performed only after the intestine has been evacuated.

Case J. T. X-Ray Observations on Colonic Peristalsis and Antiperistalsis with Special Reference to the Ileocecal Valve. *J. Internat. Chir. Med. Lond.* 3. Aug. *By Surg. Gyrec. & Obst.*

The author bases his study on the examination of 500 cases following the ingestion of bismuth meal.

Antiperistalsis was observed in thirty-seven. In most instances, antiperistaltic waves originate in the transverse colon near the hepatic flexure, proceed toward the cecum and disappear usually at a point that corresponds approximately to the ileocolic junction. Antiperistalsis has been seen also in the descending colon, especially in cases of hurried acute obstruction of the bowel.

The author's observations have confirmed the presence of a tonic contraction ring in the right half of the transverse colon as claimed in (1) on the basis of results obtained by peritoneal examination. The exact location of this tonic ring may be the tonicity of the prolimb which is usually at a point near the middle of the right half of the transverse colon.

The writer calls attention to phenomena on that has been previously described in the signs of serious bowel obstruction, as indicated by peristalsis. It has not been exaggerated in peristalsis in every case of carcinoma of the colon that he has studied. In such instances it occurred in all parts of the colon. It has been recognized by the spasmodic constipation and benign obstruction of the bowel. Also in every case studied by the author, which ileosigmoidostomy had been performed, retrograde peristalsis was observed in the left half of the colon after the operation.

Cases studied by mass peristalsis. These were first described by Holzner, who reported his observations during the last sixteen months. The author has noted movement of this type in thirty-seven patients. The bowel content suddenly lost their haustral markings and were formed into an oval sausage-shaped mass which had perfectly smooth edges and was rounded at the ends. This mass traveled slowly about the circumference of the peristaltic waves in the transverse colon. The distance traveled varied from three or four inches to several feet. After coming to rest, the mass regained its haustral markings. The time of their reappearance depended upon the consistency of the bowel contents, being brief if the content were semi-fluid and longer if they were of firmer consistency.

The effects of massage, mechanical vibration and electrical stimulation on the peristalsis of the colon were also studied in a number of cases. The immediate effects observed were deepening of the haustral contractions and sometimes the appearance of antiperistaltic waves. The author concludes that the well-recognized functional effects of massage and mechanical vibration upon the motility of the bowel must be produced indirectly by increasing the tone of the bowel muscle rather than by any actual mechanical pressure of the bowel content outward. In order to produce any true electrical stimulation of the bowel wall, bipolar electrode must be employed.

Special attention was given to the study of the function of the ileocolic valve on the theory that our present knowledge of the antiperistaltic function of the colon demands all the more recognition of the

normal competency of the ileocolic valve. In the 500 cases above referred to, incompetency of the ileocolic valve was noted in nearly 350 instances, or once in six. Such a large proportion of incompetent ileocolic valves is explained by the fact that the 500 cases were gastro-intestinal cases limited for the most part to the study.

The author states that the old idea that insufficiency of the ileocolic valve causes diarrhea is erroneous. In most cases of insufficiency of the valve the opposite condition, i.e., constipation, prevailed. The fact that fecal stasis and constipation rather than hypermotility is noted when reflux from the colon into the ileum is longer prevented by competent ileocolic valve is explained by our knowledge of antiperistaltic phenomena in the colon.

While it is generally recognized that rectal anastomosis is the whole unsatisfactory there are enough cases which it has been successful to return the colon to its normal condition.

Korbi II. Continence of the Bowel After Radical Operation for Carcinoma of the Rectum (Die Kontinenzverhältnisse nach den radikalen Operationen des Mastdarmkrebes). *Arch. f. Klin. Chir.* 9, 3, 449. By Zentralbl. f. d. ges. Chir. L. Grenzgeb.

Korbi discusses continence of the bowel on the basis of data collected in two hundred and four cases of stoma of the rectum in von Eiselsberg's clinic. He divides these cases as follows:

I. Cases in which the sphincter was sacrificed. One plastic operation according to Schoemaker was attempted for a new sphincter. The result seemed good at first but at the end of two years there was incontinence for liquid stools. Anus sacralis according to Hochenberg, i.e., deflection of the bowel to the right and fixation beneath the resected sacrum. Only after six months, and usually after a longer period of desensitization by retention, and temporary enema consumed an equal period of time. With the decrease of sensibility the patient could tell whether and how movement. At the same time an ampulla usually developed. Among the thirty cases which the late results were studied there were eight in which sensibility had been lost permanently. These were almost without exception cases in which as the result of gangrene, there had occurred retraction of the anal end of the gut followed by healing by granulation tissue. These patients did not have premonition and therefore suffered incontinence. In sixteen cases sensibility was restored and there was no incontinence for formed stools. On well-regulated diet about one half of these patients were quite comfortable. Anus sacralis according to Germany with late results in seventeen cases. Until the end of a year the spiral formation could be easily felt, and although only slight sensibility had returned, premonition was present and there was no incontinence for formed stools. After at three years the spiral formation was present only in a few cases. In the others, the folds and ampullae had taken its place. Sensi-

ility was finally restored in all cases and there was premonition for movements. Of ten cases examined after a period of three years only one showed the spiral formation, with no incontinence to speak of, even of liquid feces. Seven had well-developed folds and ampullae. Sensibility and premonition were fully restored for formed stools. For the restoration of these two functions Germany's operation is preferable to Hochenegg's as the peristalsis of the large bowel is felt more tensely. The following according to Germany therefore, has an advantage over the single anus formation.

II Cases in which the sphincter was spared. Except for a few intrarectal excisions and operations by the vaginotomy method, the procedures employed were as follows. The method of excision after Hochenegg was used in 1 case. The results are not very good. There was high mortality from infection. Good functional results were obtained in thirty-six per cent of the cases. Hochenegg's method favors the occurrence of gangrene. The danger can be minimized by incising the sphincter longitudinally according to the method of Heibek, but this procedure interferes with the functional result. The author claims that this method is indicated only when the operation must be performed speedily and when only the anal mucous membrane can be spared. Circular suture, primary or secondary as employed in thirty-four cases, with lower mortality and no incontinence in sixty-six per cent of the cases. The author considers this the method of choice. Resection of the rectum. The posterior line of suture may be supported by plastic skin flap after Kistler. To lessen the number of poor results the method should be used only primarily under absolutely favorable conditions. Otherwise the suture of the anterior part of the circumference should be completed and the posterior part fixed to the skin to produce a favorable condition for secondary suture. c. Sigmoidoprostomy after Hochenegg and Eiselsberg (Kroepel) was performed as an emergency operation in three cases. This the author considers the method of choice when a long loop of sigmoid can be drawn easily. d. Combined operation was performed in sixteen cases with thirty-seven per cent mortality.

The objection that the more radical procedures interfere too much with voluntary control to be performed extensively the author refutes on the basis of the end-results in his own cases and of those collected from the literature. HALLER.

Leuk, R., and Elster F. Experimental Radiological Studies on the Physiology and Pathology of the Alimentary Tract (Experimentelle radiologische Studien zur Physiologie und Pathologie des Verdauungstraktes). *München. med. Wochenschr.* 9 2, 14, 103.

By Zettrahl, J. d. ges. Chir. u. L. Göttingen.

The authors report the results of experiments carried out on animals for the radiological study of

the stomach. In contrast to their observations on the normal stomach they found that in hypacidity the peristalsis is stronger and the emptying of the stomach is more rapid. In hyperacidity on the other hand, there was no deviation from the normal (which fact contradicts the prevailing belief). Motor disturbances in gastric diseases, therefore, have no apparent connection with the chemistry of the stomach. This view is confirmed also by comparative observations on human beings. ROSE.

Carman, R. D. The Technique of Röntgen-Ray Examination of the Gastro-Intestinal Tract, and the Interpretation of Screen and Plate Findings. *J. Am. Med. Ass.* 9 2, 12, 3.

By Sang, Gyroc. & Olat.

The technique of bismuth X-ray work on the stomach and colon used by the author at the Mayo clinic is described in some detail. Both fluoroscopic and plate methods are used. A marked preference is given to either one as the information obtained by each is somewhat different in character. These methods, therefore, are not in competition and both are used in routine in every case. Most of the data however is obtained during the screen examination, two or more subsequent plates acting as a check up for confirming or amplifying the data previously obtained. If such a double meal is given.

The mixtures used for ingestion and injection, and the purpose of each, the general outline of instruments and the method of using them, and the manner of recording observations are all described.

Printed forms are used for all records which contain in classified form all conditions commonly seen well spaces for unusual data and conclusions. The recapitulation sheets contain the diagnostic points worked down. In this way complete permanent data can be preserved for future reference and comparison.

Points of diagnostic significance are sifted out and the combination may be strong enough and characteristic enough to point to a single diagnosis. Experience in radiology is gradually formulating X-ray sign complexes which are analogous to the symptom complexes in ordinary clinical use. The X-ray findings in given cases are diagnostic of one or another lesion in proportion to their coincidence with the known sign complex of that lesion. In our case the X-ray results alone may be diagnostic, while in another abnormal X-ray findings may be quite lacking.

In arriving at diagnosis, therefore, it is necessary to consider X-ray findings as supplemental and co-tributory to other methods.

Quoting from the author. Visualization of cancer of the stomach with obvious filling defects, or a gastric ulcer with characteristic heuristics or niche is so dramatic that the exuberant enthusiasm thus aroused has unfortunately created the impression in some quarters that the Röntgen-ray is ready to supersede the ordinary clinical methods of diagnosis. This impression should be discouraged.

for in the vast majority of instances the ray is only link in the chain. The X ray is not a rival of clinical methods, but a most valuable adjunct thereto, and worthy of routine employment.

HOLLIS E. POTTER.

LIVER, PANCREAS, AND SPLEEN

Perlaevickio, G. A Rare Case of Hydatid Cyst of the Pancreas Cured by Marsupialization (*Un cas rare d'hydatide d pancréas guéri par la marsupialisation*). *Panorama méd.* 93, No. 5.
By Journal de Chirurgie.

Echinococcus cysts of the pancreas are very rare. Hæmer, in 91 could find only twenty-eight cases in the literature, even counting the doubtful ones. Only eight of these were operated on. All were cured. In one case the pericystum was extirpated. In another Bobroff's method was used. Incision, extirpation of the parasitic cyst, injection of an indifferent fluid into the pericystum, and suture. In three cases resection of the pericystum and in five others marsupialization.

The author's patient was a woman twenty-five years of age. For eighteen months she had experienced a sense of heaviness and tension in the epigastric region, her appetite was poor, she was constipated, but had neither vomiting, icterus, diarrhoea or melena. She grew thin and at the end of eight months had an epigastric tumor as large as an orange, which was diagnosed as cyst of the mesentery.

On examination there was found a prominence in the supra-umbilical region, little to the left side. This was moved slightly by respiration. Palpation showed a hard, elastic, spherical tumor. The posterior wall of the abdomen, which could be moved slightly both vertically and horizontally. Percussion showed the stomach above it and intestinal tympany below and on the sides. There were no scars or other objective signs. A diagnosis was made of cystic tumor situated between the two folds of the transverse mesocolon.

On laparotomy a tumor was found between the stomach and transverse colon, behind the gastroduodenal mesentery. As it was very adherent all sides, the idea of extirpating it was given up. It was fixed to the abdominal wall by run of sutures and opened in the center. About quart of fluid and daughter vesicles came out. The body of the cyst was firmly implanted on the tail of the pancreas. Complete recovery resulted and was found to be permanent after nine years.

LACROIX

Kovtlin, L. Subcutaneous Traumatic Rupture of the Spleen and Its Treatment (*Über subcutane, traumatische Milzrupturen und ihre Behandlung*). *Uspenia Likiroff Park* N. T. 93 xviii, 114. By Zentralbl. f. d. gen. Chir. I. Gernsberg.

Among 33,000 patients received in the surgical section of the Sahlgren Hospital in Gothenburg from 189 to 9 there were 36 cases of subcutaneous

injury of the abdominal viscera, 5 of which were injuries of the spleen. During the same period of time there were 8700 cases of injury treated at this hospital. Injuries to the spleen therefore occurred only once in 174 cases of accidental injury and once in every 9 cases of rupture of the abdominal organs.

In four other Swedish hospitals the author has discovered eight additional unpublished cases of rupture of the spleen, making in all thirteen cases. Eleven of these were males. The youngest patient was seven years of age and the oldest sixty-seven. Most of them however were children about ten years old and men from twenty to forty years.

One patient who had a fixed and enlarged spleen ruptured it during an epileptic fit and died within fifteen minutes. All of the others had been subjected to severe violence, generally upon the left side. In no case was there a history of typhoid or malaria. In four cases the condition of the spleen was pathological in three it was moderately enlarged (once being complicated by Laennec's cirrhosis of the liver) and in one it weighed 1500 grams (Banti's disease?). In three cases, besides rupture of the capsule and medulla, there was subcapsular hemorrhage, in six single or multiple partial rupture of the capsule and medulla and in four the spleen was completely almost completely broken into two or more pieces. In four cases the rupture was uncomplicated, once it was complicated by rupture of the liver and the ventricles, once by rupture of the small and large intestines, once by rupture of the diaphragm, once by rupture of the splenic vein, once by rupture of the lung and fracture of the ribs and four times by fracture of the ribs alone.

The author believes that complicating rib fracture is probably much more frequent than is shown by these and other statistics. Pain in the left scapula or shoulder was of noticed in any case. As a rule there were no outward signs of injury. Three patients died immediately after the injury. One of the ten operated upon died. In this case there was also rupture of the liver. The remaining nine recovered after an average time of thirty-two days. The ribs were not resected in any of the cases. Incisions were made as follows: once a simple horizontal incision under the left costal margin, once a median incision, once a vertical incision through the middle part of the sheath of the right rectus, once a similar incision on the left side, and five times a T incision. Tamponing was successful in 11 cases and failed in one. In another case where the tampon was used the hemorrhage continued, and the next day it was necessary to perform splenectomy. Partial splenectomy was performed twice with good results, on third and one half of the spleen being removed. Total splenectomy was performed in five cases. On examination two to nine months after the operation no evidence of any bad effect was found. In agreement with Stenell the author advises an attempt at conservative treatment by compressing the vessels of the hilus.

Nordlin sums up his conclusions as follows:

The number of cases of rupture of the spleen brought to the hospitals in time for operation seems to be increasing. Therefore every surgeon should familiarize himself with the symptoms and treatment of this condition. There are no pathognomonic symptoms but it is possible to make probable diagnosis. The preferred incision is an exploratory incision from which a transverse incision is made through the left rectus muscle. The spleen should be preserved if possible. Future surgical progress should be in the direction of developing conservative methods.

GUNTZ

Bisch, P. and Weitmann, O. The Inhibitory Influence of the Spleen upon the Growth of Rat Sarcomata (Über den schenkbremmenden Einfluss der Milz auf das Rattenkarzinom). *Wien. M. W. Anz.* 9 J. 27, 5.

By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

Whenever the authors inoculated sarcomatous tissue mixed with splenic tissue they observed an inhibitory influence exerted by the splenic tissue upon the development of the tumors. The spleens of sarcomatous rats exerted more powerful inhibitory action than those of healthy animals. The immunity developing in the body following the absorption of the tumor cells is considerably increased by the injection of ground-up splenic tissue. The animals that remained refractive following the injection of splenic and tumor tissue did not develop any tumors following second inoculation. It is impossible to state what the action of the spleen is in all of these processes. The splenic tissue may increase the natural protective substances of the body or it may exert destructive influence upon the tumor cells by means of ferments. The injection of the splenic tissue in the rat undoubtedly produces a general reaction of some sort which must be interpreted as increasing the immunizing processes resulting from the growth of the tumor cells.

CARL LEWIS

MISCELLANEOUS

Polezoff, A., and Ladygin, M. The Haemostatic Action of Fatty Tissue in Injuries of Parenchymatous Organs of the Abdomen (Die blutstillende Wirkung des Fettgewebes bei Verletzungen parenchymatöser Organe der Bauchhöhle). *Frankf. Ger. St. Petersburg.* 9 J. 24, 737.

By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

Former experiments conducted at the clinic of Oppel and Federoff showed that the haemostatic action of transplanted tissue depends upon the presence of thrombokinae, and that therefore tissues that are rich in blood vessels and contain much thrombokinae are the best adapted for transplantation. The authors next conducted experiments to determine the haemostatic action of transplanted fatty tissue. For this purpose injuries were inflicted upon the spleen, kidneys, and liver of rabbits and the wounds sutured over with fatty tissue

or tamponed with fatty tissue. In all cases the bleeding ceased within three to five minutes. All of the animals withstood the operations well. The authors tested the method on three human patients. One case was severe subcutaneous rupture of the left kidney with severe hemorrhage which could not be controlled with the usual methods. A piece of the perirenal fat was therefore transplanted and the hemorrhage ceased immediately. The patient was discharged cured thirty days later. The other two cases were severe stab wounds of the liver and lung. In both, a piece of subcutaneous fat was transplanted and the hemorrhages ceased within a short time.

The experiments revealed the fact that fatty tissue has as good haemostatic action as other tissues although it contains only a small amount of blood and consequently only little thrombokinae. It is doubtful, therefore, whether thrombokinae is really the principal factor in the haemostatic action of transplanted tissue. At the present time the authors are determining the quantity of thrombokinae that is contained in fatty tissue.

VON HOFF

Fowler, R. S. The Elevated Head and Trunk Position in the Treatment of Surgical Lesions of the Abdomen. *J. Internat. Cong. Med. Lond.* 9 J. Aug.

By Surg. Gynec. & Obst.

This paper is based on the author's observation of over 300 cases of diffuse septic peritonitis and study of those operated upon by other surgeons.

The explanation of the value of the elevated head and trunk position given by the author is as follows: The peritoneum is an enormous lymphatic, and inflammation of this membrane is therefore lymphangitis. The peritoneal absorbents are represented by lymphatics in the structure of the peritoneum. These lymph-channels are large and numerous in the neighborhood of the diaphragm, and have comparatively large openings or stomata in the intestinal area, the lymph-trunks and stomata are less numerous, and in the pelvic region the larger lymph-channels and stomata are absent. In localities where the lymph channels are large, as in the upper abdomen, especially in the diaphragmatic area, absorption occurs before the lymph-channels can be obliterated, and the organism becomes overwhelmed. It follows, then, that if the toxic products can be confined to or drained from the lower abdominal or pelvic area, inflammatory occlusion of the capillary lymphatics will result and absorption will be retarded to great degree. It is this result that makes the elevated head and trunk position of value in surgical lesions of the abdomen.

In treating cases of peritoneal involvement, all septic material should first be removed as rapidly and with as little disturbance of the peritoneum as possible. Advantage should be taken of the force of gravity in order to facilitate the passage of fluids from abdominal areas to the pelvis. The latter is accomplished by means of the elevated head and

trunk position and has for its purposes (1) The lessening of the rapidity of the absorption of septic products by retarding the normal intraperitoneal way toward the diaphragm. (2) The relief of diaphragmatic pressure and the forcing of normal respiration. (3) The promotion of normal peristalsis, both gastric and intestinal. (4) The localization or prevention of the spread of infective processes in the pelvis.

R. W. M. KEALEY

Carré, A.: Concerning Visceral Organisms. *J. Exp. Med.* 9: 3, xviii, 1915.

By Surg. Gybec & Obst.

Carré gives an account of his experiments in which he kept animal organs alive and functioning after their removal from the animal body. Abdominal and thoracic viscera removed from the animal

dogs were kept in Ringer's solution at 35 degrees centigrade. The lungs were ventilated artificially. Food and water introduced into the esophagus were digested. Faeces were excreted from the artificial anus. Urine also was excreted. The heart beat varied from 20 to 50.

The organisms lived for periods of from three to thirteen and a quarter hours after the death of the animal from which they had been taken. In some instances the death of the organisms occurred rather suddenly. Usually, however, it was preceded by irregularity and weakness of the heart beat. In some cases the heart-beat was weak after the removal of the organs from the animal body but it became strong immediately after transfusion from another animal of the same species.

JAMES F. CHURCHILL

SURGERY OF THE EXTREMITIES

DISEASES OF BONES, JOINTS, MUSCLES, ETC. GENERAL CONDITIONS COMMONLY FOUND IN THE EXTREMITIES

Fraenkel, H. W.: Syphilitic Bone and Joint Conditions. *T. Internat. Cong. Med. Lond.* 9: 3, 1915.

By Surg. Gybec & Obst.

This paper was presented for the purpose of drawing the attention of the orthopedist to the frequency of bone and joint lesions in inherited and acquired syphilis. These must often be regarded as tubercular rheumatic etc., for in the reports of orthopedic institutions, few cases are given.

From a review of the literature published in England and America, the author is convinced that syphilitic joint conditions have not received the consideration to which they are entitled. The observations and statistics of the most eminent continental observers show much larger percentages of cases. Osler in one of his recent statements, claimed that 50 per cent of the human race die from either direct or indirect effects of syphilitic infection.

According to Fournier 30 per cent of all cases of congenital syphilis have joint diseases. Von Hippel states that 50 per cent have arthritis, and Schüller claims that 7 per cent of all joint diseases in children are syphilitic.

To arrive at a correct diagnosis by system of exclusion, the following points in inherited and acquired syphilis should be taken into account in determining bone and joint syphilis.

1. Blood tests (1) The finding of the spirocheta pallida (2) the Wassermann test and (3) the Noguchi test.

2. Night pain in the bones.
3. X-ray findings in bone and joint conditions (1) Periosteal thickening, (2) uniform bone shadow that is a unification of compact and cancellous tissue first reported by the author in 1906 (3) process appearing by contrast, as light area, and

which is gummatous destruction of the bone (4) epiphyseal hypertrophy detachment, etc. (5) bone tumors and (6) bone cysts.

4. Epiphysitis Syphilitic epiphysitis is characteristic of congenital syphilis as has been described by Barlow Fournier Farrow and Taylor.

5. Lymphadenitis General lymphadenitis should excite the suspicion of syphilis.

6. Anti-syphilitic treatment A doubtful diagnosis may be confirmed by a course of anti-syphilitic treatment.

Attention is drawn to the fact that a syphilitic hydrops of the joint precedes the eruption both in congenital and acquired syphilis and that syphilitic and tuberculous processes often occur simultaneously in the same lesion, a fact that must be remembered in the differential diagnosis.

The reports of cases of syphilitic bone and joint disease in which mistakes had been made in diagnosis or which presented some peculiar syphilitic condition.

Observers have stated that in congenital syphilis about one half of the cases develop arthritis. In doubtful cases the author advises submitting the patient to Wassermann and Noguchi blood test but he has found that in some cases in which a negative Wassermann is obtained small injection of salvarsan or mercury salts in syphilitic cases will give positive reaction.

It is pointed out that tubercular discharge from joint does not exclude the possibility that syphilis may be the real cause of the joint disturbance, and if the syphilis is treated the tubercular infection may often be cured.

At the Hospital for Deformities and Joint Diseases there was found in 15 per cent of the cases a tubercular invasion on syphilitic base. A marked improvement was obtained in these cases by the addition of salvarsan and iodide to the other treatment.

Wachner F. Acute Osteomyelitis and Plastic Operations on Bone in Childhood; from the Material of the Emperor and Empress Friedrich Children's Hospital for the years 1890 to 1912 (Über Akute Osteomyelitis und Osteoplastik im Kindesalter bearbeitet an dem grossen St. Nikolaus-Kinder- und Kaiserin Friedrich-Kinderkrankenhaus in der 7. Kinder-Bezirks von Jahre 1890-1912). Arch. f. Kinderh. 54 (1912) 51-52, Festsch. f. Adolf Magdsky 74.

By Zentralbibl. L. d. ges. Chir. Grossegeb.

This work is divided into consideration of osteomyelitis in childhood and thorough review of Gluck's methods of plastic operation on bone for defects caused by osteomyelitis and similar processes.

The author notes the frequency of streptococcus infection of bones and joints in infancy and the prevalence of mixed infections later. Of the infectious diseases, scarlet fever is the most apt to be followed by osteomyelitis. The infection results from embolus at the points where the bone is particularly rich in blood vessels. Trauma is often a starting point.

The prognosis depends upon the severity of the general symptoms. Prompt limitation of the focus of infection improves the prognosis and lessens the danger of general septicemia. In children the neighboring joint are frequently involved by metastasis. Suppuration does not always take place for many beginning inflammations are overcome by the vitality and bactericidal power of the tissues.

The diagnosis is not always easy in early childhood. Violent general symptoms (fever, local pain, doughy swelling around the bone and florid disfigurement of the affected limb) will be noticed before the roentgen picture shows any changes.

The treatment consists in carefully opening the periodical abscess. If the general symptoms continue the bone should be opened thoroughly. In spite of the early removal of affected bone most or less extensive necrosis can not always be prevented. In the 90 Gluck replaced the defect with ivory and obtained good cosmetic and functional results, as is shown by a great number of roentgen pictures. The results of operations that he performed 1890 and 1891 have been permanent. The vein in which the whole tibia was replaced by ivory is especially interesting. Even when the permanent replacement of the bone by the ivory was prevented by the formation of fistulae however the ivory served purpose as temporary fixation, preventing the sinking-in of the soft tissues of the limb and acting as an irritant to stimulate the formation of new bone.

Pictures are given showing artificial knee-joints and cases of plastic operations with hollow bones, metal rods, and bone from the same individual that grew in very well in spite of previous treatment with bicarbonate solution.

In conclusion reports are given of two cases. In one the entire tibia except small piece of the diaphysis at the upper end was removed. The

astragalus also was resected. The bone was replaced by the shaft of the fibula and an artificial joint formed between it and the calcaneus. A picture taken after fourteen years had elapsed showed a new joint formed between the calcaneus and the fibula which had developed the strength of a normal tibia. In the second case the entire tibia, patella, and astragalus were resected and the tibia replaced by the fibula. After five years not only had the fibula increased decidedly in length and thickness but new bone had been formed from the fragment of periosteum that remained. Series.

Dachler H. W. Typhoid Periostitis. I. In *Kent R. Soc. Boston*, 93 Oct.

By Surg. Gymer & Obst.

Dachler reported cases of chronic periostitis with new bone formation which were first diagnosed as syphilis on the basis of both clinical findings and roentgenograms.

These cases gave negative Wassermann but the tibial nodes were so suggestive that the patients were placed on a typhoid treatment though without benefit.

The author had examined one patient three years previously when the latter was convalescing from typhoid. At that time he undoubtedly had typhoid periostitis according to both clinical and roentgenographical findings and none of the bone changes were present that were found three years later and from which the diagnoses of syphilis were made. Neither mercury or neo-salvarsan improved the patient's condition and it finally decided to try the effect of typhoid vaccines.

Two cases were treated, one by Lenson and another by Daniels. The pain in the legs and the other symptoms disappeared and symptomatically the patients were cured.

Further roentgenograms recently taken show no marked change in the bone picture and the patients report that there has never been any return of the symptoms previously complained of.

In conclusion, the author states that there may be marked similitude in the bone changes of chronic tibial periostitis and syphilis and careful attention to the clinical history may be necessary to avoid errors in diagnosis.

Talbot, Dodd, and Peterson. Experimental Scorbutus and the Roentgen Ray Diagnosis of Scorbutus. *Boston M. & S. J.* 1913, vol. 32.

By Surg. Gymer & Obst.

The first line seen in radiographs at the ends of the diaphyses of the long bones has been considered by previous writers to be constant in, and peculiar to, the scurvy. This line which is due to selective increase in calcium deposit at this point has been seen in advance of the clinical or radiological signs of subperiosteal hemorrhage and persists for months after an apparent cure.

When scorbutus is associated with rickets, radiographs show in addition to the white line,

distinct roughening of the ends of the bone shaft as if it were teased out with a needle. Also in certain cases of syphilis, white line has been noted occasionally but it is by no means constant.

Experiments were conducted by the authors to test the constancy and further explain the pathological condition that results in the white line. Guinea pigs and monkeys were used. Fed with oats or bread and water the younger guinea pigs succumbed before the arrival of clinical scorbutus. The larger pigs survived about forty days, and although a definite white line could be demonstrated radiographically in one or more cases, the epiphyses were rather too well united to correspond to the stage of development seen in infants. On microscopical examination the white line was found to be the seat of definite increase in the density of the bone.

A monkey fed on unsweetened condensed milk death occurred in three months. Though unobserved during life the characteristic white line at the diaphyseal ends was noted in the radiographs taken post mortem.

These experiments confirm those previously reported in that it was possible to produce scorbutus in the guinea pig and monkey and the condition was accompanied by the radiographical white line that is seen constantly in infantile scorbutus.

HOLLIS E. POTTER

Van der Scheer W. M. Osteomalacia and Psychoses (Osteomalacia and Psychoses). *Arch. f. Psychiat.* 9 3 1, 845.
By Zentralbl. f. d. ges. Psychiat. u. Geburtsh. d. Grenzgeb.

Osteomalacia is often regarded by the clinical symptoms and microscopical appearance of the bones in osteoporosis. The author examined microscopically the glands with an internal secretion having an influence on the metabolism of the bones, i.e., the thyroid gland, the ovaries, the adrenals, and the hypophysis. He considers osteomalacia a chronic inflammatory process which is produced by definite agents, toxins or bacteria, and which requires special predisposition. This predisposition exists in disturbed metabolism which may arise from functional disturbance of certain glands with an internal secretion.

The author's view explains the frequent occurrence of the disease in pregnant and puerperal and nervous women. Patients with chronic insanity are also much more predisposed to this disease than others. This may be due to the fact that the glands of internal secretion play an important role in certain forms of chronic psychoses. RUMBLE, IV.

Papa, N. Bone Cysts, Ostitis Fibrosa and Multiple Enostoses (Knochencysten, Ostitis Fibrosa und multiple Enostosen). *Verh. d. 8. f. Lfg. d. med. Chir. Ges. d. 1. d. 1934.*
By Zentralbl. f. d. ges. Chir. u. L. Grenzgeb.

The author reports a case of bone cyst in the upper half of the humerus of a 17 year-old girl. The cyst

had given no symptoms and was discovered in the roentgenogram taken because the patient sustained a fracture of the upper arm below the surgical neck from a fall. The roentgen picture showed with certainty that it was a cyst and not a sarcoma that was present. The cyst wall was chiseled out anteriorly and the microscopical examination verified the diagnosis. Consolidation occurred in from six to seven weeks. The function of the arm was restored completely. No cysts were demonstrable in other parts of the osseous system.

The author mentions further a case of fibrous osteitis in the uppermost part of the femur in a 3 year-old woman. The roentgen picture showed a considerable swelling of the left side in the trochanter region, which was permeated with hollow spaces. Cavities were seen also in the collum and the caput. The collum formed almost an acute angle with the diaphysis of the femur. The bone in the acetabulum seemed more transparent than normal. The roentgen of the right hip joint showed merely an irregularity in the joint surface of the caput. A case of cartilaginous exostoses is also reported.

STUMPF

Hass, S. L. The Regeneration of Bone from Periosteum. *Surg. Gynec. & Obst.* 9 3, 4, 64.
By Surg., Gynec. & Obst.

In an original experimental work, the author has endeavored to determine the exact role that the periosteum plays in the regeneration of bone. He presents also a short résumé of the literature, and the opinions of the leading investigators along this line.

The author's observations were made in a series of six two experiments on rabbits, dogs, and cats, which lasted from four to two hundred and forty-nine days. All of the experiments were made upon the ribs, which were treated according to a number of methods. The first experiments showed the normal method of regeneration following a simple subperiosteal resection both when bone elements were left in and when they were entirely removed. In another set of experiments the rib was raised from its periosteal bed and a layer of muscle sewed beneath so as to separate it entirely from the periosteum. Bone always grew in from the angle formed by the raised rib and periosteum.

It cannot be denied that the bone may have had some influence in originating the regenerative process but it is significant that the regeneration occurred only when the periosteum also was present. Therefore the author concludes that the periosteum must have acted in some other way than by merely passively directing the distribution of new bone. It ascribes to the periosteum some power possibly of a chemotactic nature which determines the direction in which new bone shall grow. In another series of experiments similar to the above but with the addition of blood-clot to the periosteal space the blood-clot stimulated the periosteum's activity even in the absence of any bone connection.

The author's conclusions are as follows: (1) Periosteum especially in the presence of blood-clot, has the power to regenerate bone. (2) Regeneration of bone is not dependent solely upon the presence of pre-existing bone. (3) Regeneration of bone was never found unless periosteum was present.

Hartung, A. Unusual Bone Lesions. *T. Am. Radiol. Soc.*, Boston. 9/3 Oct.

By Surg. Gynec. & Obst.

Two groups of cases are considered in both of which there is more or less generalized involvement of the bone. In one the bone affects practically constitutes the disease in the other it is manifestation of coincident lesion.

Group I includes two cases of osteitis fibrosa of the variety first described by Paget in 1877 and commonly known as osteitis deformans. These presented all the usual findings—insidious onset, progressive bony enlargement and deformity, pelvic posture, etc. The X-ray examination revealed a coincident osteoporosis and sclerosis, the fine cancellous markings being replaced by coarse trabeculation. The skulls were especially distinctive in that they showed peculiar mottling.

Case 3 of the first group was an example of osteitis fibrosa cystica first described by Von Recklinghausen in 1890 and commonly known as multiple bone cysts. Repeated X-ray examinations showed a large number of localized decalcified areas in the cortex of the bones much thinned and expanded. Some of these had fractured spontaneously some produced pain and swelling, and others were wholly unsuspected. The case was under observation for over four years and the patient's general health during this time as impaired.

The next group of three cases came under the classification of hypertrophic osteo-arthritis of Marie. Two of them are associated with pulmonary tuberculosis and the third with chronic jaundice due probably to fluke infestation. All three had the characteristic bilateral enlargements of the wrists and ankles associated with some pain and tenderness. Some of the other joints are likewise affected. The X-ray examination revealed an absence of joint changes but marked osteoporosis near the ends of the long bones around the joints involved. Thus as most marked the metatarsals and carpi, the ends of the radius, the tibia and the fibula.

Ely, L. W. Diseases of Joints and Bone Marrow. *Am. J. Surg.* 9/3 Dec. 1900.

By Surg. Gynec. & Obst.

Ely divides joint conditions into two types. Type I includes those cases that are characterized by inflammation or proliferation of the synovia. Type II, those cases that are characterized by inflammation and degeneration of the synovia, degeneration of the marrow and resulting hypertrophy of the bone and cartilage.

As representing Type II the author describes

simple synovitis in which there is no gross pathology and only the synovia is inflamed. The disease shows no tendency to spread and involves only one, or at most two joints. This is a true arthritic deformity in which the infectious element is very feeble in its manifestation. In this class the author puts non-traumatic synovitis and intermittent hydrops. It differentiates it from the various other forms of synovitis.

Severe multiaxial group. It is pointed out that this group is essentially multiaxial and progressive and inolves various joints in succession. Pathologically this group is proliferation of the synovia and in most cases, also of the lymphoid marrow as trophy of the bone (either rindling osteitis, or resorption of calcium salts) and so erosion and destruction of the cartilage which results in subluxations, distortions, and fibrous and bony ankylosis. The onset and the symptoms vary. There is a tendency toward symmetrical involvement of the joints which is more or less characteristic. The small joints of the extremities are most likely to be the first involved. Still's disease is included in this group.

As representing Type II the author groups osteoarthritis and the hypertrophic form of Goldthwaite. In discussing the etiology he states that patients with this type of arthritis often suffer with flatulence and intestinal indigestion. In many cases repeated trauma is probably a factor.

The author believes that the changes are due to degenerative processes in the bone marrow, the deeper layer of the periosteum and the synovia. The bone and cartilage become hypertrophied. The resulting atrophy of the articular cartilage is due to the growing in of new cartilage and bone beneath. The latter deprive the articular cartilage of its nutrition which it derives from the marrow. The peripheral cartilage becomes hypertrophied, and, either persisting or becoming changed into bone, causes spurs, exostoses, and deformities. When portions of the proliferated cartilage get loose, they give rise to joint mice.

Ely states that constitutional symptoms are not conspicuous and that pain and restriction of function in the affected joint are the chief causes of complaint. The restriction of motion is due to mechanical interference.

J. O. WALLACE.

Ridlon, J. The Mechanical Treatment of Hip Disease. *T. Internat. Cong. Med., Lond.*, 1903, Aug.

By Surg. Gynec. & Obst.

By hip disease is meant any chronic inflammation of the hip joint that is not differentiated from tuberculosis, and which, when left untreated, results in more or less diminished range of motion at the joint, with usually some deformity and frequently shortened limb.

All cases of hip disease demand mechanical treatment only. Very small percentage demand operative treatment, and so those, mechanical treatment is as essential as for cases not operated upon.

The mechanical treatment falls into three general classes, i.e., plaster of Paris splints (long and short) metal splints for immobilization (of which the Thomas splint is the best type) and traction devices for use in bed and for walking (the T-Yor splint).

Some cases require treatment in bed for a time some patients may walk with crutches or the protecting traction splint, and others, at least during the period of convalescence, may with advantage walk on the limb without crutches.

FRACTURES AND DISLOCATIONS

Dollinger B. The Reposition of Fractured Bones under Local Anesthesia (Über die Reposition der Brüche in Lokalanästhesie) *Zentralbl. f. Chir.* 9 3, 21, 765.

By Zentralbl. f. d. ges. Chir. 1. Grenzgeb.

The best treatment for recent simple fractures of the extremities is the accurate reposition of the parts under the guidance of roentgen rays and fixation by means of plaster of Paris splints—the Dollinger bandage. In fourteen cases the author controlled the muscular spasms occurring during the reposition of the fractured bones, by means of local anesthesia. The anesthetic was either injected between the ends of the fracture or given by the circular infiltration method. The author prefers the latter as the easier and more expedient. When the first method is employed, 1 to 2 cc. of a 1 per cent novocaine-saline solution are injected directly between the ends of the fractured bone. The anesthesia is complete at the end of from five to ten minutes. The author anesthetized two cases in this manner. He recommends the second method, however, as in the first the injection is very painful, the bone fragments very tender and the solution easily missing the nerves on account of local hemorrhages may readily enter the lumen of a blood vessel and cause narcotic poisoning.

By means of a thin needle, 1 cm. in length the author infiltrates the parts from as few points as possible in fractures of the forearm, from 2 points in fractures of the leg from 3 to 4 points and in fractures of the thigh, from 4 to 5 points. These points are about 6 or 7 cm. above the fracture line. In cases of larger hematomata they are 10 or more centimeters above. The injections are made to affect the entire transverse section of the part, first the subcutaneous tissues and then the deeper structures, layer by layer. The anesthetic solution should always precede the needle point. After from 10 to 15 minutes the anesthesia is complete the muscular spasm ceases, and the reposition and bandaging of the limb can be accomplished easily in this manner the author treated among other cases four thigh fractures, and sutured 1 patella. When anatomical conditions such as those in fractures of the pelvis, ribs, etc., preclude the use of this method, the injections must be made between the fragments of bones. The author claims priority for the application of the circular infiltration anesthesia in fractures of the thigh. Some

Speed, K. Juxta Epiphyseal Sprain and Sprain Fracture of the Lower End of the Radius. *Surg. Gynec. & Obst.* 9 3, xvii, 24.

By Surg., Gynec. & Obst.

The diagnosis of injuries to the wrist covering juxta-epiphyseal sprains and epiphyseal fracture in children and sprain fractures in adults is difficult. These injuries differ from the Colles fracture, which we have gotten into the habit of calling all fractures of the wrist. Light on the subject of lower radial fractures was sought by skiagraphic study of the closure of the lower radial epiphysis. Starting with a child seven years of age skiagrams were made of subjects a year apart in age up to a twenty-two-year old adult. The lower radial epiphysis is the most important because it is there that the greatest growth occurs. Accordingly its health should be guarded to avoid displacements after sprain and fracture and the development of bacterial activity.

A study of the skiagraphic development of this epiphysis demonstrated its growth and closure. At about the eleventh year the ulnar border of the epiphysis begins to close. The closing process slowly travels across toward the inner side of the radius, and the lower epiphysis becomes thicker and larger. The styloid process takes 1 cm. about the fourteenth year and at the nineteenth year the epiphysis is found to be closed while the styloid process is still growing. The inner side of the epiphysis is the last to close. After the twentieth or the twenty-first year the styloid assumes adult form. On account of the attachment of the strong wrist ligaments in the epiphyseal area, the latter which is the last to become ossified and is subject to severe strains incidental to falls on the hands, is the site of cracks and fractures before other portions of the bone. As the hand is more often abducted than pronated, the main stress in falls occurs on the internal ligaments. The ulnar border of the radius is held firmly by the radio-ulnar ligament. The latter resists and the styloid process gives first. The median edge of the epiphysis, closing last, leaves weaker spot here to give this result. The pronator quadratus muscle acting above, tends to pull over the upper part of the radius and to approximate it to the ulna and thus gives additional counterpull to the tearing out force of the internal lateral ligament.

The capsular ligament of the wrist is continuous with the periosteum of the radius, and juxta-epiphyseal sprain, with tearing of these structures causes symptoms as acute as those resulting from epiphyseal or sprain fracture. In sprain, the swelling and effusion of blood are deferred. In this it simulates fracture, which is but farther extension of an identical force. As a rule, if the capsule tears or gives way the bone does not break. The ligament, however, is stronger than the bone or periosteum, and in the majority of tests on the cadaver pulls out the bone surface or causes by its line of stress a sprain fracture extending obliquely with no displacement across the epiphyseal area. The median

4. There is not complete unanimity of opinion regarding the influence of the Lane plates on the rapidity of repair. Some surgeons think that they retard union. It may be difficult to determine this point definitely but in the writer's experience there can be little doubt that they shorten the period of disability by permitting earlier massage of the muscles and mobilization of the joints.

SURGERY OF THE BONES, JOINTS, ETC.

Krabbel, M. Plugging Bone Cavities with Free Transplantation of Fat (Zur Plombierung von Knochenhöhlen mit freier Transplantation Fett). *Arch f. Klin. Chir.* 93, 1909, 400.
By Zentralbl. f. d. ges. Chir. f. Grenzgeb.

Bone cavities were plugged with free transplanted fat in 15 cases. Four of these were cases of chronic osteomyelitis, five of tuberculous and one of osteosarcoma. The technique employed was the same as that followed by Blaszkas. In five cases the fat healed in promptly in three the plug was expelled, and in two cases there was tuberculous relapse.

The proximity of an articulation and the necessity of opening such a cavity is not a contra-indication for the transplantation. If there be tuberculous infection of the soft parts also besides that of the bones, all of the diseased portions must be removed carefully. If a fistula forms the plug must be removed immediately to avoid relapse. The bone-forming advances but slowly and is only moderate after a year's time as is demonstrated by radiograms.

CARL

Weiss, R. The Operative Treatment of Snapping Hip of Luxatio Tractus Iliotibialis Traumatica (Die operative Behandlung der schnappenden Hüfte der Luxatio tractus Iliotibialis traumatica). *Menschr. f. Unfallheilk. u. Grenzgeb.* 93, 1909, 6.
By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

In the case described the painful snapping of the hip occurred after fall against railroad track. On operation, completely isolated tendon-like part of the Iliotibial band, the width of finger was found stretched over the trochanter, in no way connected with the tendinous or muscular part of the gluteus maximus and completely separated from the tensor fasciae latae. The band was cut as it would have been of no use even if it was sutured to the posterior surface of the trochanter. The Trendelenburg sign was also negative. The patient was able to walk within twelve days after the operation.

GRABER

Schewandlin, M. The End Results of Lexer's Arthrodesis of the Ankle-Joint (Endresultat der Lexer'schen Arthrodesis am Sprunggelenk). *Arch f. Klin. Chir.* 93, 1909, 400.
By Zentralbl. f. d. ges. Chir. Grenzgeb.

Nine cases are reported in which arthrodesis of the ankle-joint was performed by Lexer's method, the use of a wedge of bone from the tibia with periosteum and marrow or of a section of the fibula throughout its entire thickness. In every case the bone sections were obtained from the patient.

After the operation a plaster of Paris cast was used for from six to eight weeks. At the end of that time an ambulatory splint was worn for from two to four months. The cases have been observed from two to five years after operation. Five cases were examined personally by the author. Four patients sent a written report of their condition.

In the first group there was one case of osseous arthrodesis, but in this patient, fourteen months after the operation, the malleolus was fractured to correct the position of the foot. The author believes that this procedure completed the ankylosis. In the second group one patient reports that he walks without pain, steps with the whole foot normally and that there is no lateral movement.

By this method bony ankylosis in the articulation between the tibia and the astragalus does not occur often. It is more frequent in the articulation between the astragalus and os calcis. The arthrodesis lasts only until the interposed bone is absorbed, which requires different lengths of time in different cases. The cases all made uneventful recoveries.

WITTEK

Depage. Resection of the Posterior Tarsus (Résection du tarsus postérieur). *Ann. Soc. Chir. de Chir.* 93, 1909, 97.

By Journal de Chirurgie.

Depage states that methods for resecting the tibiotarsal joint and the posterior tarsus are very numerous and a young surgeon may find it very difficult to make a choice between them when treating tuberculosis of the foot. This multiplicity of methods is due in part to the multiplicity of the sites of infection.

When the astragalus is tuberculous it may be removed by Vogt's method. While the removal of the astragalus is often practical, it is, however, often insufficient, for even if the adjoining synovial membranes are all removed tuberculous foci may be left. Furthermore, this operation leaves a flat-foot which is not very serviceable.

Another method is resection of the tibiotarsal articulation by Hueter's method. This gave excellent results in the case reported by Depage. The tibial plateau, astragalus, calcaneum and even the anterior tarsus may be removed, and all of the tuberculous foci may be cut away.

3. The mid-tarsal resection by two lateral incisions according to Koenig's method is not as good as the preceding.

4. Kocher's method of resecting the posterior tarsus and tibiotarsal articulation is of great value.

5. The tibiotarsal resection through an incision in the sole of the foot as recommended by Busch, Szabanejew and Bogdanoff has no special advantages.

6. The method of posterior tibiotarsal resection of Vladimiroff-Mikulich as modified by Kroditz

Simultaneously with this treatment massage and gymnastics are begun twice daily. The individual parts of the apparatus are gradually taken off as the patient improves.

The advantage in this method lies in the fact that the patient is able to assume the upright position immediately. As a result there are brought about more favorable circulatory conditions in the spine which favor the absorption of an abscess or edema. Furthermore, on account of the passive stretching of the muscles the spasms are decreased.

SEITZ.

SURGERY OF THE NERVOUS SYSTEM

Stoff, L. A. New Facts in Regard to the Nature of Sciatica and New Methods for the Operative Treatment of the Disease (Neues über das Wesen der Ischias und neue Wege für die operative Behandlung des Lähmens) *Mitschen und Wochenschr.* 93 ix, 354.

By Zentralbl. f. d. ges. Chir. Göttingen.

Stoff states that it is incorrect to consider the sciatic nerve as a whole. It is necessary to differentiate within it a number of motor and sensory tracts similar to those in the trigeminal nerve. Diseases of these different individual tracts produce different clinical symptoms. As the various tracts always occupy the same position within the nerve it is possible to attack them individually by surgical measures. The Stoff model of the nerve shows the individual tracts in cross section. The nerve is

exposed, the diseased tract is mobilized for distance and severed. Neurolysis of the proximal and distal part may then be performed. The absolute anesthetic zone resulting is surprisingly small. The relative anesthetic zone immediately following the operation is much larger but in time gradually decreases. Trophic disturbances or subjective disturbances never occur as a result of the anesthesia.

In a severe case that resulted in scoliosis, this condition immediately improved after the operation (extirpation of the Nn. cist. sur. med. et lat. and its tracts in June, 9) without any special after-treatment. The patient since then has been absolutely without pain. The author intends to publish another article in regard to further details.

SEITZ.

MISCELLANEOUS

CLINICAL ENTITIES—TUMORS, ULCERS, ABSCESSSES, ETC.

De Quervain, F. The Position of Tumors in Nature (Über die Stellung der Geschwülste unter den Naturerscheinungen) *Leipzig Vogel*, 93.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

In this lecture, delivered before a general scientific audience, the author gives his experience of many years in regard to the tumor problem. In general, he recognizes three kinds of morbid stimuli: (1) Physical, (2) chemical, (3) parasitic. The third group cannot be sharply divided from the others, as its effect may be chemical as well as mechanical, but it differs from them in that its exciting cause is living substance. The reactions following their action are also divided into three main groups: (1) Reparatory, (2) inflammatory, (3) tumor-forming.

The relation between cause and effect is discussed briefly with good examples. The parasitic effects, which are discussed more at length, often cannot be limited by time or place. The main part of the work deals with the neoplastic reactions. Their formation by various irritants, and analogous processes in the vegetable and lower animal kingdom, are briefly discussed. Two tables give survey of the various actions and reactions. Briefly discussed are tumors, especially congenital tumors, in which no irritant is demonstrable. In theoretical investigation the

author regards it mistaken to separate tumors into benign and malignant, and believes that the tumor problem should be treated as a whole. For the clinician of course the separation is important. Every cell has the latent ability to form tumors. The author ends his interesting study with discussion of the subjects of predisposition and immunity, the purpose of tumor formation, healing and prophylaxis.

KLEINENBOM.

Jensen, M. On the Vulnerability of Fast Growing Cell Groups. *J. Internat. Cong. Med. Lond.* 93 Aug.

By Surg. Gynec. & Obst.

The author believes that the vulnerability of cells is in direct proportion to the rapidity of their growth. This principle is illustrated by the destructive action of the roentgen ray on fungous granulations, sperm cells, and other rapidly proliferating cells. This decreased resistance on the part of the more rapidly proliferating cells is seen also in cases where in the same tissue there is difference in the rapidity of the growth of the cells. For example, the cells of the epiphyseal cartilage discs can be entirely stopped in their growth by the action of the roentgen ray without interfering with the remaining parts of the skeleton.

In rachitis the same principle is met. The disease in early infancy manifests itself in the form of cranial tabes, consequence of the rapid growth of the

cranial bones to accommodate the rapidly enlarging brain. In later childhood, the disease affects mainly the skeleton of the extremities, which, during this period, shows the more rapid growth. The author explains the condition of achondroplasia in a similar way. He attributes the lack of cartilage development in this condition to the fact that the fetus is enclosed in an amniotic sac that is too small, and that "squeezes out its blood or most of its blood."

The cartilage the gluton of th tissues suffers first and most from this famine.

The author believes that the increased vulnerability of rapidly growing cells may explain the localization of other pathological conditions, as, for example, the localization of osteomyelitis to epiphyseal ends of the diaphyses, and Czerny's eruptive diathesis to the much exposed outer and inner coverings of the young body. The same principle may play a part in the development of cancer and explain the disappearance of certain rapidly growing tumors during the course of severe infection.

BARNETT BROOKS

Well, G. C. Spontaneous and Artificial Development of Giant Cells in Vitro. *J. Pathol. & Bacteriol.* 93, xviii, No.

By Surg. Gynec. & Obst.

Well reports his studies on the method of development of foreign-body giant cells made by carefully observing their formation in cultures of splenic tissue in vitro. Lycopodium spores having been added to the medium to act as foreign bodies. He found that the cellular activity about the foreign bodies follows rather definite and uniform course.

Polymorphonuclear leucocytes with some lymphocytes promptly migrate to the region of the foreign body surround it and show amoeboid and phagocytic activity for several days, degenerating about the sixth day to homogeneous mass with irregular nuclear masses, not giant cell.

1. At the end of about thirty-six hours there appear in the culture large mononuclear cells which are readily distinguished from developing connective cells and which approach the foreign body by their amoeboid activity. These cells engulf the small foreign bodies, and on coming in contact with larger ones flatten out along their surfaces and become multinucleated foreign-body giant cells.

Well was unable to observe the development of the giant cell directly but by comparing the number of large amoeboid cells approaching given foreign body during the development of the culture with the number of nuclei in the giant cells about the foreign body as seen in the final stained preparation, he concludes that the giant cell is the result of nuclear division in an individual cell. H. B. LOOMIS.

Harris, W. H. The Association of Tuberculosis and Malignant Growths. *J. Med. Research.* 19, x, xviii, 472. By Surg. Gynec. & Obst.

At present it is an undetermined problem just what relationship it is, if any, that tuberculosis and

malignant tumors occurring in the same area bear to each other. The author records his observations in the case of a white man, forty-five years of age, who presented clinical signs and symptoms indicative of laryngeal neoplasm. As far as could be determined by clinical methods, the lungs and other organs were normal. Repeated sputum examinations showed that no acid fast bacilli were present. The Wassermann reaction was negative. On operation an irregular growth was found protruding just between the junction of the thyroid cartilages. Microscopical section showed this to be a distinct epidermoid carcinoma. A complete laryngectomy was then performed. Microscopical study of serial sections revealed the presence of a distinct epidermoid carcinoma of the spinocellular type. In the stroma were seen epithelioid cell infiltrations with lymphoid and plasma cells scattered here and there. These infiltrations arose from underlying well-defined, miliary tubercles, which presented a central area of caseation with circumferentially arranged epithelioid cells, few plasma and lymphoid cells, and an occasional giant cell. One year after the time of operation there were no evidences of recurrence of either the carcinoma or the tuberculosis. The patient had gained over 3 pounds in weight and was of ruddy color and apparently in the best of health.

The author thinks that perhaps in this combination in the larynx, the tuberculosis provoked the tumor formation by its destruction of the tissue relationship. He adds that the tumor probably found in the diseased area of tuberculosis the proper conditions for development. In other words, that the tuberculosis formed primary pathological soil upon which the tumor thus provoked continued to flourish while the tuberculosis in part yielded.

GEOFFREY E. BRIDGES

Freund, E. The Causes of Carcinoma (Die Ursachen des Carcinoms). *T. Internat. Cong. Med. Lond.* 93, Aug. By Surg. Gynec. & Obst.

Freund asserts that in looking for the causes of carcinoma we must consider not the irritation that gives immediate rise to the growth but the abnormality in the organism which allows it to produce that effect in the one individual of the many who are affected upon by the same irritant. Moreover in the majority of the persons affected by carcinoma there is no irritation that might cause it. Therefore there must be predisposition. Freund and Caminer have found that the blood of carcinoma patients acts very differently from the blood of normal individuals toward carcinoma cells. Normal blood destroys carcinoma cells the blood of carcinomatous patients does not destroy them, and it prevents their destruction by normal blood.

The destructive power of normal blood on carcinoma cells is due to its content of a hitherto unknown fatty-acid combination that can be extracted with ether. This substance is lacking in carcinomatous blood. Moreover carcinomatous

blood contains a pathological nucleoglobulin that is different chemically from normal nucleoglobulin in that it is richer in ether extract and carbohydrates, and, biologically in that it combines the normal fatty acids and makes them ineffective and protects the carcinoma cells from destruction by normal blood serum.

The important question as to whether these variations from normal are cause or result of carcinoma has still to be decided in part.

Stomach and other lesions that are frequently the location for carcinoma differ from normal tissue in that they lack the cell destroying fatty acids.

Röntgenation, which often results in cancer may neutralize this cell-destroying acid in the skin. The cell-destroying acid is lacking in places where carcinoma appears easily even before the appearance of the carcinoma. The lack of the acid therefore it be regarded as local prerequisite for cancer.

It has been determined that in contradistinction to normal nucleoglobulin, the pathological nucleoglobulin has the property of attracting carbohydrates to it from the serum and accordingly those substances that are found in special abundance in carcinomatous tissue. The nucleoglobulin seems to be the substance that provides the carcinoma with its special nutritive material. It has been determined how the pathological nucleoglobulin is formed from normal nucleoglobulin. The extracts of various organs from carcinomatous individuals can be added to normal nucleoglobulin solution without changing its action upon carcinoma. But if an extract from the contents of the small intestine of a carcinomatous individual be added to normal nucleoglobulin solution it takes on the chemical and biological properties of carcinomatous nucleoglobulin and exercises protective action on the carcinoma cells against normal serum. This active substance of the intestinal contents has been isolated. It is a hitherto unknown unsaturated fatty-acid combination that is found only in the small intestine of carcinomatous individuals. We must therefore assume that the katabolism of food in the intestine of carcinomatous subject is pathological, giving rise to abnormal substances which cause abnormal protein compounds and thereby pathological state of nutrition of the cells. A. Goss.

Itomori, M. The Disappearance of Round-Celled Carcinoma in the Course of Erysipelas (Verschwinden eines Rundzellenkarzinoms im Verlauf eines Erysipels). *Nippon-Geka-Gakkaï-Zasshi* 9, 3, 44-45. By Zentgraf, J. d. Ges. Chir. u. i. Genaue.

A woman fifty-six years of age as operated upon for an ovarian cyst of the right side. A tumor the size of Hen's egg as found on the left side of the umbilicus. At the end of two months it was as large as child's fist. It was then extirpated. After short time tumor large as fist with nodular surface reappeared, accompanied by severe pain. A hemorrhagic erysipelas bulbosum set in

and within week both the tumor and a metastasis in the inguinal glands disappeared. Although the patient recovered from the erysipelas, she died from exhaustion. OTAKA.

Citelli, R. A Very Useful Method in Treating Hysterical Aphonia (For use methods tres utile pour guérir l'aphonie hysterique). *T. Internal. Cong. Med. Lond.* 9, 3, 109. By Surg. Gynec. & Obst.

Citelli's method consists in making very strong, painful and sudden pressure when the patient is not expecting it on the large cornua of the hyoid or the thyroid cartilage. This should be done with the first three fingers of the right hand after having caught the tip of the patient's neck with the left. The physician then demands in loud tone of voice that he speak and the patient frightened out of obedience has morbid habit of consciousness, finally returns in his normal voice.

Smith, G. M. Morphological Changes in Tissues with Changes in Environment. Replacement of Surface Epithelium of Grafted Tissue by Adjacent Epithelium. *J. Med. Research*, 913, 370-43. By Surg. Gynec. & Obst.

The author's purpose in this paper is to record number of experiments showing invasion of the surface epithelium of grafted tissue from hollow abdominal organs by neighboring cells, and to define some of the factors which underlie the process.

Operative technique. Whenever possible direct implantation of one organ into another was made by the suture method. Cases in which, for topographical reasons, direct implantation was found to be impossible the following method of transplantation in two stages was adopted for the transfer of tissues. By preliminary operation loop of intestine supplied with freely movable mesentery as sutured to the outer wall of the organ from which the tissue was to be removed for transplantation. At the end of week or ten days the second operation of tissue transfer was performed. The tissue of the organ to be transplanted was resected in such manner that its center lay at the point of its attachment to the intestinal loop, from which it then received its new blood supply. The tissue was next trimmed down to the desired size, usually from three to four centimeters in diameter and was ready for implantation. A second abdominal incision was made over the organ about to receive the graft, and the tissue to be transplanted, attached to the loop of intestine and properly protected by gauze, was drawn through the peritoneal cavity and brought into position suitable for the implantation. In this way tissues from the gall-bladder, urinary bladder or uterus could be readily transferred to any part of the peritoneal cavity for anastomosis with other hollow organs.

Smith's article is based on the results of fifty operative experiments, dogs, and the protocols of illustrative cases are given. From this experimental study the author draws the following conclusions:

Following utoplastic transplantation of part of one hollow abdominal organ into the wall of another the epithelial surface of the implanted organ may undergo change in structure. This change occurs when the epithelium of one organ differs in type from that of the other and is the result of the replacement of the epithelium of the graft by another that is derived from the organ that has received the implanted tissue.

Replacement of the epithelium of grafted tissue depends upon the change in environmental conditions. Changed physical and chemical conditions dependent upon the peculiar function of the organ which receives the graft affect unfavorably the life and growth of transplanted epithelium, while the same conditions favor the activity of the regional invading cells.

Whereas replacement of the epithelium of grafted tissue may follow implantation into another hollow organ, the epithelium of the same organs gives no evidence of replacement when their tissues grow in contact under equal conditions within the peritoneal cavity.

GEORGE E. BEILEY

Küttner H. The Importance of Free Transplantation in Modern Surgery (*Die freie Transplantation und ihre Bedeutung für die moderne Chirurgie*). *Neurochirurg* 1913, 4, 5, 3.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

This article is a short review of the theory and practice of free transplantation in modern surgery. In contrast to the possibilities in the lower animal orders, and in the embryonic state of the lower vertebrates, transplantation in man is limited within very narrow boundaries. Autotransplantation is the only form in which there is any certainty that the transplanted tissue will remain alive. Material for transplantation must be obtained from other human beings if the patient himself cannot furnish it. Transplantation from animals to man is now rejected. Küttner believes that in this we go little too far. He reports successful transplantation performed a year and half ago of fibula from a macacus cynomolgus to man. According to the roentgen picture, the monkey bone remained unchanged and there were no signs that absorption had taken place.

Brock gives the biological relationship of man and the higher apes as follows: (1) Man (2) orang-utan, (3) gibbon, (4) macacus rhesus and nemestrinus and (5) macacus cynomolgus. He thinks that biologically man is about as far removed from the orang-utan as the latter is removed from the macacus rhesus. According to Friedenthal, man and the macacus are considerably nearer than rabbits and guinea pigs.

Aside from the particular form of hetero-transplantation mentioned, the only possible transplantation in man is auto- or homo-transplantation. The transplantation of entire organs by suturing the blood vessels is successful only in autotransplantation and therefore has no practical value. The attempt to perform homoplastic transplantation in a

position of parabionts has not given satisfactory results. Transplantation of glandular organs such as the thyroid, without regard to the blood vessels, has shown that even in homoplastic transplantation from closely related individuals absorption eventually takes place in spite of beginning reparative processes and that only in autotransplantation can any increase in size of the transplanted organ be observed. Kuttner recommends therefore, instead of transplantation the administration of macerated normal human thyroid substance. According to Landolt's experiments, the suprarenal glands also persist only on transplantation.

The author considers briefly the possibilities of transplanting suprarenals, testes, ovaries, muscle and nerve tissue, entire extremities, epidermis, skin, mucous membrane, fat, fascia, tendons, serous membrane, blood vessels, bone, pericardium, cartilage and joints. He goes into more detail in considering the transplantation of joints from the cadaver. Before using material from the cadaver which should be as fresh as possible, a bacteriological examination should be made. Two cases have been shown that material can be used successfully twenty-seven and thirty-five hours after death. Therefore, there is sufficient time for a bacteriological examination if it be hurried. A description is given of two successful cases of transplantation of bone from the cadaver of chondrosarcoma, and further use of such transplantation is recommended.

HALLER.

Szeleski, W. W. The Clinical Character and the Treatment of Railway Injuries (*Der klinische Charakter und die Therapie der Eisenbahnverletzungen*). *Russk. v. med.*, St. Petersburg, 9, 3, 23, 24.

By Zentralbl. f. d. ges. Chir. u. l. Grenzgeb.

The author reports five hundred and two injuries to railroad workers observed in the three hospitals of the Nikolai railroad from 1904 to 1906. Of these ninety-two cases were contusions with no mortality, one hundred and ten, wounds of soft tissues with a four per cent mortality, seventy simple fractures with mortality of five per cent, one hundred and ninety-seven, compound fractures with mortality of thirty-three per cent, and thirty-three miscellaneous injuries such as burns, luxations, contusions of the brain, etc. with mortality of thirty per cent. Szeleski characterizes railway injuries as follows:

They are generally multiple. All wounds are infected. 3. They are complicated by severe contusions. 4. There is severe hemorrhage. 5. The wound surfaces are large. 6. Injuries of this kind have characteristic course which the author divides into three periods. 1. A period of shock lasting from a few hours to twenty-four hours. 2. A period of recovery from the wound lasting from three to five days. 3. A period of recovery of the body from infection and intoxication, the duration of which depends largely on the size of the area injured. The treatment should be confined in the first period to combating the shock by giving large doses of

morphine and saline infusions of 5000 cc. and more. Operative procedures should be undertaken during the second period and should be as radical as possible. The following principles should be observed: Wounds of the soft parts should be given open treatment. In complicated fractures of the long bones, especially if the large joints are involved, high operation is to be preferred to conservative treatment. 3 All depressed fractures of the skull should be trephined. In the third period general tonic treatment is most important. Warm baths and alcoholic compresses are recommended.

ROBERT KAMOFF

SERA, VACCINES, AND FERMENTS

Sahli. Theses on T. bacilli Treatment. *Lancet*, Lond., 9. 1. 1913, p. 379. By Serg. Gyroc & Obst.

All of the various tuberculin are essentially identical. The active principle is the protein of the tubercle bacilli.

To avoid disastrous mistakes in therapeutic dosage it is advisable to provide the practitioner with tuberculin in suitably graduated dilutions.

The use of tuberculin for diagnostic purposes ought to be condemned. It is unreliable, both positively and negatively. Diagnostic injections are dangerous.

T. bacilli treatment is free from danger only if more obvious clinical reactions are avoided.

In advanced cases tuberculin treatment may sometimes produce certain symptomatic effect, but this effect does not compare with the utility of tuberculin in incipient cases.

The general practitioner and especially the family physician, should render himself proficient in tuberculin treatment.

The theory of the therapeutical action of tuberculin may now be regarded as well established. The significant factor is the increased production of that which Sahli has called inflammatory antibodies and the specific tuberculin autoceptor.

Tuberculin acts favorably only when the human organism is not already sufficiently under the influence of absorbed tuberculin.

It is not necessary to increase the doses of tuberculin to the furthest limit of tolerance. Many cases improve more with much smaller dose.

The large doses of tuberculin recommended recently for the purpose of reducing temperature have no curative value.

In tuberculin treatment we look for only stimulation and activation of the counteractions of the body at each injection.

All localized tuberculosis is suitable for tuberculin treatment provided that the patient's system is not already overloaded with tuberculin and he is, therefore, too seriously ill. As a rule, acute cases cannot be treated by tuberculin.

Tuberculin treatment by means of multiple cuti-reactions has been proved harmless and useful especially for incipient cases.

Treatment with well-diluted tuberculin is real and great advance in therapeutical progress.

DONALD C. BILROTH

Von Behring, E. A New Diphtheria Antitoxin (Oberlin notes Diphtherieschutzmittel) *Deutsche med. Wochenschr.*, 1913, xviii, 773.

By Zentralbl. f. d. ges. Chir. I. Grenzgeb.

This article is a short review of a paper read by von Behring before the Congress of Internal Medicine in Wiesbaden on April 18, 1913. The remedy designated by him as Δ M or Δ M M consists of mixture of diphtheria toxin and antitoxin, and represents in its composition the result of exacting experimental studies made by him on all available animals. Purposes of the vaccination are (1) To produce long continued immunity (2) To acquire antitoxigenous—i.e. native human antitoxin—from highly immunized subjects for passive immunization in place of the usual foreign antitoxin secured from the horse (3) To effect the more rapid removal of diphtheria bacilli in diphtheria carrier.

The injections are made subcutaneously and intramuscularly. An exact program is given for the test. After injection of the material, many antibodies are formed rapidly and there is a rise of fever. Most of these antibodies disappear from the blood just as rapidly as in the usual passive immunization with the serum. When the new remedy is used, however, a sufficient quantity of the newly formed humors remains in the blood for longer periods as protection against the disease. In the horses that he immunized with diphtheria toxin von Behring is able to demonstrate the presence of antibodies in the blood five years after the last vaccination. In one case a child was immunized with an antitoxigenous serum gained from another child.

It was found that this antitoxigenous antitoxin as regards its disappearance from the blood does not differ materially from the uterogenous antitoxin acquired in the process of active immunization. The absolute harmlessness of the remedy has been proved by the trials made hitherto (eighty cases). Similar to Jenner's vaccine-therapy one or two injections of von Behring's new remedy produce long-continued protection against infection without injuring the health of those vaccinated. Besides being of eminently practical significance, von Behring's new discovery modifies very materially our views on the effect of toxin and antitoxin. According to his results, definite and irreversible neutralization of the toxin in vitro such as has hitherto been supposed to take place is impossible. ECKERT

Cruickshank, J. and Macleod, T. J. Alterations Produced in Complement-Containing Serum by Introduction of Lecithin. *J. Pathol. & Bact.* 1913, xviii, No. 1. By Serg. Gyroc & Obst.

Cruickshank and Macleod report a highly technical research on the nature of complement action. Lecithin prepared from egg yolk was rapidly added to diluted serum and the globulin and albumin

fractions then separated by precipitation of the former with carbon dioxide gas. The lecithin fractions thus obtained as well as the whole serum were tested as to their hemolytic power in various combinations. The authors summarize their results as follows:

1. The introduction of lecithin into complement containing serum of the guinea-pig does not materially alter the complement dose in the case of rabbits serum the complementary activity is frequently increased.

2. The albumin fraction from serum treated with lecithin is as actively hemolytic for sensitized corporas as the original complement, while the globulin fraction retains the property of clotting effectively with the ordinary albumin fraction.

3. The addition of lecithin to ordinary albumin fraction after separation does not enhance the complement activity of the fraction.

4. The lecithin must be mixed rapidly with the serum or with the water used for dilution in order to produce the effect described. Slow admixture does not yield an active lecithin-albumin fraction.

5. The albumin fraction of serum treated with lecithin is absorbed by complement-absorbing agents. It can also replace the complement in the Wassermann reaction.

6. The activity of the lecithin albumin fraction is dependent upon the presence of complement in the original serum.

7. Lecithins differ markedly with regard to their power to produce the alterations described.

The authors suggest that lecithin acts by rendering active a component of complement which is normally present in an inactive or latent state but they feel that this theory is not completely enough to account for the increase of complement activity which results with certain rabbit sera merely with the addition of lecithin. C. G. MITCHELL

Auer and Van Slyke. A Contribution to the Relation Between Proteid Cleavage Products and Anaphylaxis. *J. Exp. Med.* 9, 3, xviii, 9. By Surg., Gynec. & Obst.

On examination of the anaphylactic lung by means of Van Slyke's amino nitrogen method, the authors found no evidence of an increased amount of proteid cleavage products. They conclude that the investigation gives no support to the hypothesis that the true anaphylactic lung of the guinea pig is caused by the products of protein cleavage. JAMES F. CROUCHILL

BLOOD

O'Brien, R. A. Rat of Reproduction of Various Constituents of Blood of Immunized Horses After Large Bleeding. *J. Pathol. & Bacteriol.* 9, 3, xviii, 89. By Surg., Gynec. & Obst.

Using the blood of two immunized horses from each of which had been taken ten litres, O'Brien followed the reproduction of various constituents for

thirty four and forty-seven days respectively. He gives charts and tables showing his results, which he summarizes as follows:

1. The number of white cells varies widely and irregularly.

The hemolytic titre remains practically constant, the variation being at most only ten per cent from the initial figure.

3. The total amount of salts present does not decrease but may be increased ten per cent.

4. The content of all other blood constituents falls. The haemoglobin and number of red cells fall together to 50 or 60 per cent of the initial figure.

5. The curves of total proteins and diphtheria antitoxins show a close relation. G. G. SMITH

Heyter H. Contributions to Haemophilia (Kausale Ursache Beiträge zur Hämophilie). *Mitt. a. d. Hamb. Staatskrankenh.* 9, 3, xiv, 9.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Three cases of haemophilia observed for a period of ten years are reported. The first case was that of a hereditary bleeder in whom puberty had no effect upon the disease except to change the character of the hemorrhage to renal hemorrhage. The latter stopped after rest in bed, diet poor in meat and the administration of gelatine calcium salts, serum and calcine. In the second case there was congenital anomaly but no hereditary element. Hemorrhage into the joints predominated, and was treated at first with iodoform-glycerin injections, as an incorrect diagnosis of tuberculosis had been made. Ovarian tablets had no curative effects, but calcium chlorate (one per cent solution, three tablespoonfuls daily) had a good effect. A severe hemorrhage into the floor of the mouth necessitated a tracheotomy. The third case was a typical hereditary bleeder (over four generations). Effusions into the joints were prominent. Ovarian tablets were effective.

Of theoretical interest, and perhaps of practical significance, is the recommendation of ovarian tablets and calcine. Grant made his deductions from the fact that women are practically exempt from haemophilia. Suspecting an internal secretory antagonistic hormone, he wished to secure this from organ extract and administer it to the male body. Calcine is a combination of calcium and gelatin, the hemostyl action of the two components is well known. Besides calcine, meat-free diet, milk, uncooked fruit and abstinence from alcohol recommended for bleeders. KAUTER.

BLOOD AND LYMPH VESSELS

Hesse E. A Palpatory Symptom of Valvular Insufficiency in Beginning and Invisible Varices (Über ein palpatorisches Symptom der Klappeninsuffizienz bei beginnenden und nicht sichtbaren Varizen). *Arch. u. Klin. Chir.* 19, 3, lxxv, 50. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In answering the question as to whether valvular insufficiency of the vena saphena magna is present

or not when Trendelenburg's symptom is not visible to the eye, Hesse argues that the symptom described by Hackenbruch as fluctuation shock (a wavelike motion in centripetal direction) is not to be regarded as physiologically normal, as it is also observed when the valves of the saphena are sufficient. On the other hand, the symptom given by Schwarz, wave-like movement in centrifugal direction, is proof of a valvular insufficiency: palpation of the proximal segment of the saphena produces fluctuation in the lower parts of the saphena. Hackenbruch's symptom of stenoic summer ("Durchspritzschwüren") has also some significance. Hesse describes new symptom, palpation of the regurgitative blood stream, which is of val in patients with so-called invisible or beginning varices—nutritional disturbances in the leg, ulcers, and difficulties in walking that cannot be accounted for.

The saphena is looked for on the inner side of the knee and its course is marked on the skin with iodine. With the patient in the horizontal position the leg is elevated and the blood massaged out of the saphena. Its trunk is then compressed in the fossa ovalis and the patient brought into an upright position. Two fingers of the free hand are placed on the iodine line, which corresponds to the invisible saphena. In cases of valvular incompetency there is regurgitation of blood, the slightest variations of which are detected by the palpating finger as "rushing eddies" ("surrende Wirbelströme"). Frequently they may be heard with the stethoscope. In these cases sapheno-femoral anastomosis gives splendid permanent results. DRAUDT.

Guggenheim, H. On Lymphogranulomatosis and Its Relation to Other Systematized Lesions of the Hematopoietic System (De la lymphogranulomatose et de ses rapports avec les autres lésions systématisées de l'appareil hématopoïétique). *Thèse de Doct. Par.* 913. By Journal de Chirurgie.

Guggenheim reports two cases of lymphogranulomatosis in which he made bacteriological and an histological examination of the glands and blood. Bacteriologically his results were negative, as were all tests for tuberculosis and syphilis. There was a slight leucocytosis with relative increase in polymorphonuclear cells.

The glands of the neck, axilla, and groin were examined microscopically. It was noted that the normal architecture of the gland was lost and had been replaced by fibrous meshwork in which were found lymphocytes, plasma-cells, endothelial cells, and eosinophils of lymphoid origin.

The first case was that of a woman, thirty years of age, who died from tracheo-bronchial adenopathy despite three operations and treatment with radium. The second was that of a woman of forty-two, whom some benefit had come from intensive treatment.

Guggenheim next reviews the cases of non-specific, non-leukemic, non-tuberculous adenopathy reported during the last ten years and finds that the following terms are used somewhat indiscriminately by various

authors: Hodgkins disease, Trousseau's adenitis, aleukemic lymphoma, pseudoleukemia, lymphosarcoma, lymphogranulomatosis, etc.

He believes that the condition which he describes as lymphogranulomatosis deserves distinct place in classification which includes also lymphosarcoma, a metastasis-forming, tissue-involving and destroying tumor and the aleukemic lymphocytoma (Vaquez, or pseudoleukemia of Pinhas, a condition in which there is a hyperplasia of the lymphoid cells, and the denopathies of tuberculosis, syphilis, leprosy etc. JES CLAVET.

SURGICAL THERAPEUTICS

Beck, E. G. The Present Status of Bismuth Paste Treatment of Suppurative Sinuses and Empyema. *J. Internat. Cong. Med., Lond. 1913, Aug.* By Surg., Gynec. & Obst.

The author gives résumé of his experience in treating 100 cases with the bismuth-paste method in the past eight years, and summarizes the work of other surgeons in America and abroad. These reports represent a class of cases in which the use of bismuth paste was preceded by other treatment.

The author's own material consisted of surgical cases in which all other means of treatment, surgical medical, etc., had been tried previously. Only six per cent were finally given up as hopeless. Many instructive cases are cited in which well-planned operation, following correct diagnosis by means of tracing the sinuses to the focus of the disease, was effective, or when operation was not feasible, the sinuses were closed by merely the injection of the bismuth paste. The bismuth-paste treatment fails only when the technique is not carried out properly, when the instruments used cannot meet the essential requirement of filling all of the sinuses at once, and when foreign bodies, such as rubber tubing the rod of probe, or sequestra, that should have been removed before the injection, are still present.

In the series of 100 cases treated by the author and his brothers there were no fatalities from bismuth poisoning due to the fact that the bismuth paste was applied properly. All fatalities from poisoning reported by others occurred during the first five years that the method was in use. No report of fatalities has been made in the last year although the bismuth paste treatment has been used even more extensively than before.

Beck employs a ten per cent paste in cases of cold sinuses to prevent the formation of slimes and obtains good results.

ELECTROLOGY

Cannon, W. B. The Early Use of the Röntgen Ray in the Study of the Alimentary Canal. *J. Am. Phys. Res. Soc., Boston, 9, 1, Oct.* By Surg., Gynec. & Obst.

After reviewing the earliest experiments to make manifest the contours of hollow organs, such as

arteries by injecting metallic salt the author gave an account of the first observations of the movements of the oesophagus and stomach seen when food is mixed with subnitrate of bismuth and examined by means of the roentgen rays. Causton maintains that the method now so widely used in examining the alimentary tract was developed gradually and that there is little warrant for ascribing its invention to any one person.

Holland, C. T. The Statistics of the X-Ray Examination for Stone in the Urinary Tract. *J. Internat. Cong. Med., Lond. 93 Aug.*
By Surg. Gen. & Obst.

The author analyzes in detail the X-ray findings of 1003 patients examined for stones, and discusses the various conditions shown by X-rays and the percentage of cases.

Each case was found. He considers also the question of differential diagnosis. In 17% of the cases other than those of stone occurred. The proportion of stones in every 3.43 males and in every 4 females. Calculous glands are noted in every 4 males and in 1 in every 6 females.

With regard to kidney and ureter stones, there is laid on the necessity of complete examination in all cases. A stone or stones were found in 4 out of 1003 patients examined. In every 4 cases. The stone was found on the right side 55 times and on the left 60 times. In 13 cases more than one stone occurred in the ureter or kidney. In the same patient sometimes on opposite sides.

The X-ray findings of stones were very few indeed, and it was sometimes difficult to determine whether the shadow found was really that of a stone or that of some other condition. Frequently small pure uric acid stones found to be present at the time of examination and passed later were not noted in the X-ray examination.

Pure uric acid stones in a kidney or ureter must be extremely rare as none were found in any of the cases in which the kidney was operated upon after a negative X-ray examination. The number of operations following negative X-ray examinations was 35 and in almost all of these cases some other cause was found for the symptom.

Attention was called to the fact that negative X-ray diagnosis does not necessarily mean that there are no stones in the bladder. For in 4 out of 104 cases in which bladder stones were found there was no X-ray shadow. In each of these 4 cases the stone as found on analysis to consist of pure uric acid and moisture.

Lazarus-Barlow, W. S. The Effect of Radio-Active Substances and Radiations Upon Normal and Pathological Tissues. *J. Internat. Cong. Med. Lond. 93 Aug.*
By Surg. Gynec. & Obst.

There is much evidence that a destructive or injurious effect is exerted by radium and that this is bound up chiefly with the alpha rays. From the

laboratory point of view evidence concerning the beta and gamma rays is less convincing and in the case of the latter the opinion is gaining ground that the clinical effects that have undoubtedly been noted depend upon the secondary beta rays to which gamma rays give rise on meeting with an obstructing substance. Doses of radiation less than those producing definite destructive effects produce an inhibition; thus, mouse cancer cells irradiated to a degree short of killing them grow more slowly on transplantation. It is evident that even smaller doses stimulate the growth of cells. This fact is of importance since the author has found small quantities of radium element in cancerous tissues and in gall stones associated with cancer of the gall-bladder, where normal tissues and gall-stones not associated with cancer of the gall-bladder showed either no radium traces or the verge of experimental error. Mitram had shown in his laboratory that cells in mitosis are about seven times as vulnerable to radium as cells in the resting stage.

Safermann, Progress of Radium Therapy. *Internat. Cong. Med. 93 Aug., 95.*
By Surg. Gynec. & Obst.

In the light of present-day knowledge the indications for radium therapy are: (1) rheumatism of the joint and muscles, acute and chronic; (2) arthritis, subacute, chronic, deformative and gonorrheal; (3) neuralgia, intercostal neuralgia etc.; (4) sciatica, including inflammation of the nerve ends; (5) gout, uric acid diathesis; (6) tabes dorsalis, diminution of lightning pains; (7) catarrh of the antrum and frontal sinus; (8) arteriosclerosis; (9) blood diseases; (10) constipation; (11) diabetes and glycosuria and (12) nephritis.

The beneficial clinical results in this varied list of diseases are due to physiological actions the existence of which can be proven in living organisms. Some of the experimental results demonstrate the following facts: (1) radium emanation promotes the growth and multiplication of healthy cells and the decay of morbid cells; (2) in man, the emanation produces diuresis; (3) radio-active water stimulates the digestive tract and produces catharsis; (4) the uric acid and urea content of the urine is markedly increased; (5) vaso-dilation is produced; (6) the viscosity of the blood is diminished; (7) the blood pressure is lowered, probably because of (5) and (6); (8) metabolism is increased especially that of hydrocarbons; (9) digestion both in the stomach and in the intestines is rendered more active; (10) there is a nerve-soothing effect which may aid to check insomnia; (11) sexual activity is increased; (12) the effect on the blood is leucocytosis followed by leucopenia with increase in the number of the red corpuscles.

The cause for these physiological effects is not so easy to determine. There is reason to believe that they are due to an increase in the activity of body ferments. At least it is easy to prove experimentally that ferment action is greatly increased by the in-

fluence of radium, and on a working basis it is assumed that such is the action within the human body.

Radium increases the activity of ferments as would catalytic agent either starting chemical changes or hastening their action if already in progress. The result is increased oxidation of the products of metabolism. This oxidation in diabetes takes the place of oxidation by the normal ferments the function of which is said to be disturbed in diabetes, although it is true that the symptoms of neuritis have been aided by radium treatment more often than the glycosuria.

The results in nephritis, arterial changes, etc., also are explained as being the result of an increase in the ferment action caused by the radium. One of the facts upon which this conclusion is based is that in artificial nephritis, etc., the ferments are destroyed by the poisons that produce the disease.

HOMER C. PORTER

Lange. Röntgen therapy I. Measured Masah.
Doses. J. Am. M. Ass. 3, 12, 550.
B. Surg. Gynec. & Obst.

Lange discusses the principles underlying the X-ray treatment of malignant growths and points out the importance of measured dose by which the X-ray treatment is placed upon a rational biological basis. He states that the treatment of teratoma myomas, climacteric hemorrhage and uterine cancer by the X-ray became successful only by the massive dose technique as adopted and used as made of an aluminum filter of 3 mm and compression band to emarginate and desensitize the skin.

By the massive dose technique it is possible to give four times the erythema dose in one exposure and in one series extending over several days, and to subject the same area of skin to from six to ten times the erythema dose without apparent injury. Also by varying the area of the skin exposed, tremendous quantities of the Röntgen rays may be delivered to the deep tissues. The possibility of administering measured massive doses is the basis of successful roentgenotherapy.

III. SURGERY

Abbe, R. Radium in Malignant Disease. T. Internat. Cong. Med. Lond. 3, Aug.
B. Surg. Gynec. & Obst.

The author stated that while universal testimony agrees that the vast majority of superficial and some internal cancers can be cured by radium there are still some failures and they need to be explained. This explanation he has found in an experimental study of the growth of plants that had been exposed to radium at different distances and for different periods. He showed beautiful photographs of plant growth to prove that the close application of radium destroys life, but when the rays are within the range of half an inch to an inch and half they excite and stimulate growth. Beyond that radius the so-called

gamma rays prevent growth. It is these that are the only ones that are of value in reducing malignant tumors.

It has been proved by the French that heavy lead plate will shut out the harmful rays and permit the useful gamma rays to go through slowly and to destroy malignant tumors.

However by the new plan of distance filtration, without lead plate, the same, or better results are obtained in quarter of the time or less. The radium is held at distance of one and half inches and in this manner most of the undesirable rays are excluded.

The author showed also many illustrations of the wonders worked by radium—numerous cases of tumors on the vocal cords, which destroyed the singing and speaking voice and obstructed breathing, and which were cured by one strong application for thirty minutes the tumors disappeared in eight weeks.

A remarkable illustration was that of a gentleman on whose very bald head had grown many malignant tumors for eight months. One application of radium by the new method of distance filtration caused their complete disappearance in twelve days.

Of interest also were illustrations of malignant destruction—bone tumors cured with restoration of the bone by burying radium in them. The earliest case remains cured nine years after the treatment.

Abbe spoke enthusiastically of the great work of the British Radium Institute and of recent German work, the results of which have all been corroborated by his own experience.

Fusey, W. A. What Can be Done I. Cancer w/ Röntgen Ray? J. Am. M. Ass. 3, 12, 550.
B. Surg. Gynec. & Obst.

The author regrets the partial disrepute into which the X-ray method of treating cancer has fallen since the advent of more general, and consequently haphazard, use of the rays. The present scepticism is no doubt largely result of errors made in cases treated with mediocre skill. In the hands of trained men the results obtained today from this method demand an even greater recognition than those obtained in the early days of great promise.

Epitheliomas, irrespective of type may be symptomatically cured by roentgen rays if the subcutaneous tissues are not deeply involved and there are no metastases. Occasionally growths with deep extension, even those involving bone and regional lymph nodes, respond in remarkable manner.

As a rule those cases are to be chosen for roentgen-ray treatment in which there is no involvement of regional lymph glands. Such cases with proper treatment give results which compare favorably with those of any other method. When good results can be obtained, they are usually permanent.

Following surgical removal the X-rays play an important rôle in preventing the recurrence of localized cancers near the surface. This is particu-

lary true of breast cancers in which dissemination has not taken place. The roentgen treatment is without avail in cancers of the deeper viscera or in cases where metastasis has occurred.

HOLLIS E. PUTTICK

Holding, A. F. The Roentgen Technique of Deep Therapy. *The Roentgen Rays in the Treatment of Cancer*. By Surgeon General and Obstetrician.

Holding stated that (1) A review of the medical literature up to 1900 shows that there had been reported up to that time 334 cases of malignant conditions treated by roentgen methods. The results varied more according to the gynecological technique than according to the morphology of the tumor. (2) A review of the medical literature shows that 1667 cases of myomatous uteri treated by roentgen methods in which the end result is known, 376 cases were cured and 20% were improved. Of 27 cases in which the end result is known, 200 were reported cured and 200 improved. (3) Adolf Kronig Gynaecology and Vaginitis published conclusions reports that (4) if deep therapy on carcinomas of the face, breast, rectum, uterus, cervix, and vulva. (5) H. M. and V. M. used monochromatic in conjunction with the deep therapy.

A sufficient number of good results have been reported to compel the consideration of deep roentgen therapy by the leaders of the medical profession.

Measured massive doses with filters and the use of the most penetrating rays with the most successful results. Unmeasured fractional three times-a-week, roentgen time is recommended.

A résumé of the essentials of the G. U. S. technique for the treatment of myomatous carcinomas was given as follows: (1) the use of hard beams—Walter 6-8 Wehnelt (2) the use of filter of aluminum 3 mm. thick (3) the use of a break in the primary current so that 100 to 200 impulses per minute may be delivered to the site (4) the division of the skin or the site of the disease to small areas, each square and the treating of each area separately and only once in series (5) the administration to each area of skin of 5% or one half times the erythema dose (6) the cross firing of the rays so that the rays directed at different angles through different areas of skin converge to the site of the disease (7) the directing of the rays toward the site of the disease from every angle from the front, back, sides, above and below and (8) the administration of the treatment in series. A series consists of 500 to 550 X administered once or twice a day. This is followed by an interval of about 8 or 10 days, the end of which time another series is administered. In myoma cases five to six series are customarily used.

In gynecological cases, patients were treated for one or two days, intervals of eighteen to twenty-four days, covering a period of sixty to one hundred days. Amenorrhea was obtained within one month after treatment was begun.

The utilization of the G. U. S. technique will be more readily accepted for inoperable malignant conditions than for gynecological conditions. As to whether it should be used in the latter field must be determined by the gynecologist. The duration of the treatments seems to be needlessly tedious. They can be greatly shortened by increasing the size of the areas of the skin that are treated at one time.

The publication of brilliant results with such enormous dosages given by Gauss was liable to dangerously stimulate the widespread treatment of disease by men who do not measure their dosages of X-rays. The slogan of success in roentgen therapy is the same as that of any specialty technique.

MILITARY AND NAVAL SURGERY

Wolf W. Periostitis from Over Exertion and Spontaneous Fractures in the Army (Über Anstrengungsperiostitis und Spontanfrakturen in der Armee). *Deutsche militärärztliche Zeitschrift* 93, 212, 518. By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

Periostitis from over-exertion occurs only in the lower extremities, on the inner surface of the tibia and the femur. Soldiers complaining of pains in the femur were often accused of simulating because a periostitis could not be diagnosed on account of the thickness of the soft parts of the thigh. To-day the roentgen examination explains such cases.

The author reports the case of a soldier who complained repeatedly after long marches of pains in both thighs. Examination yielded no objective findings. The roentgen examination, however, revealed periosteal stratifications on the inner side of the femur.

Chronic inflammation of the periosteum causes defective nutrition in the bones which results in abnormal brittleness. Periostitis from over-exertion is therefore an important factor in the frequency of spontaneous fractures of the lower extremities in the army. The author reports in detail also a case in which suspected fracture from periostitis was ascertained by the X-ray.

Schorr

Stierlin and Vlacher. Experiences with the Mashtol Bandage in the Servia Turkish War (Erfahrungen mit dem Mashtolverband im serbisch-türkischen Krieg). *Centralblatt für Chirurgie* 93, 212, 518.

By Zentralbl. f. d. ges. Chir. u. f. Grenzgeb.

Stierlin and Vlacher were active in the reserve hospital at Belgrade and in a field hospital at Mashtol at the battle of Mashtol. At these places they used aseptic viscoline gauze directly on the wounds, sealed it with mashtol solution and put an ordinary piece of bandage over it. Infection was prevented by this method, even during transportation of the wounded. The severely lacerated and crushed wounds were dressed with ordinary gauze. Much time and material were saved by employing the mashtol bandage. Their solution consisted of 4 gm. mashtol, 100 gm. benzol and 40 drops of linseed oil.

GRÖTSCHE

GYNECOLOGY

UTERUS

Kelly, H. A. and Keel, J. C. Carcinoma of the Cervix of the Uterus. *Med. Jour. N. York Hosp.* 1907. 1. By Surg. Gynec. & Obst.

This article deals with the ultimate results as far as they could be obtained of 11 cases of carcinoma of the cervix treated in the gynecological clinic of the John Hopkins Hospital from 1901 to 1907. All 11 cases died. A summary of the clinical history, treatment, and results, and brief autopsies are given.

The authors draw the following conclusions:
1. The external bimanual removal of all uterine carcinoma is justified, but there are some cases where complete removal is not possible. In some cases, partial removal is indicated. The operation is performed by the high primary method, the first stage of permanent removal of the tumor is the measure thus far suggested.

An exploratory operation is often necessary to determine whether or not the tumor is operable.

2. Obesity is not necessarily a contraindication to the operation, and the abdominal incision is made at the depth of the umbilicus.

3. The preliminary treatment of the tumor is of little value, and especially if the patient is not operated on, the probability of cure is small, and secondary infection of the urinary tract is common.

4. Increased cervical mobility is sometimes due to secondary inflammatory reaction and may be improved by treatment of the primary growth.

5. Preliminary treatment and transfusion of the primary growth are of little value.

6. The increase in peritoneal fluid does not compensate for the rise in the peritoneal cavity of the primary growth.

7. The improvement in the technique of the operation, the primary mortality has been decreased from 8.4 per cent for the first seven years to 5 per cent for the last six years. Further simplification and perfection of the details of this operation may yet reduce the primary mortality to nearly that of the ordinary laparotomy and make it more generally available.

Aside from the discovery of the histological factor of carcinoma of the cervix of the uterus and the successful elimination, the greatest hope lies in the early recognition of the primary growth. This can be accomplished only by more thorough training of the family physician as to the symptoms and signs of cancer and by systematic education of the laity.

George E. Barry

Klein, G. Results Obtained with X-Ray Treatment of Carcinoma of the Uterus, Ovaries, and Bladder. *Folge der Röntgenstrahlung bei Carcinom des Uterus, der Ovarien und der Blase.* *Deutsche Gesellschaft für Gynäk. u. Geburtsh.* 1907. 1. By Zentralbl. f. d. ges. u. n. Geburtsh. d. Gynäk.

From 1904 to 1907 the author treated six cases of carcinoma of the uterus with the X-rays. The principal results are that the tumors are prevented from spreading and the pains and decomposition decreased during the treatment. The surrounding tissue surrounding the tumor became firmer and acted as a wall through which the tumor did not spread. With improved operations and technique the author advised Dr. Hirsch and Mosheim of the Munich polyclinic to treat with X-rays slow patients suffering from inoperable cervix involvement of the uterus, patients whose carcinoma of the uterus had been extirpated, total of 1 case. One patient had Wertheim operation performed in January 1907 and had two vaginal recurrences.

Each case was treated and cauterized. As a result of prolonged X-ray treatment the tumor is now probably free of any recurrence. This is the only case of this kind known to the author. There is no proof that the cure effected is permanent, but in any case the result is excellent. Those cases which have been operated upon previously are especially adapted for the X-ray treatment, as all carcinomatous areas can be destroyed much more easily than large inoperable tumors. Probably the effect is due to the destruction of the carcinoma organism, as the result of the surrounding tissue infiltrated with leukocytes is rendered capable of taking care of the tumor rest that remains. Of particular interest was the case of an adenocarcinoma of the breast. The tumor was removed in 1907 and removed the recurring nodules in 1909, 1910, and 1911. The tumor was treated with X-rays and the last nodule, extirpated in 1911, also had no carcinomatous tissue left. Five and three quarters years after the amputation the patient is still free from recurrences. The results are good also in operable and inoperable ovarian adenomas and carcinomas. In all cases the growth was checked, scars formed much less frequently and the tumors became more firm.

Pinkham, A. The Results of Mesothorium Treatment in Carcinoma (Über die Erfolge der Mesothoriumbestrahlung bei Carcinom). *Ber. Klin. Wochenschr.* 1907. 1. By Zentralbl. f. d. ges. u. n. Geburtsh. d. Gynäk.

Since September 1907 the author has treated twenty-four cases of genital carcinoma successfully.

with mesothorium. The activity of 88 mg. radium bromide proved to be sufficient when the treatment was repeated frequently and this amount minimized the danger of injuring neighboring parts. After prolonged exposure the surface cancer cells become degenerated, but deeply lying nodules were not influenced and metastasis was not prevented.

Success depends upon the degree of the malignancy of the cancer, the general constitution of the patient and his tendency to become cured. Frequently cessation of the growth was produced by mesothorium, but later more rapid extension occurred. Abdominal exposure demands great care and experience. Tumors lying near the abdominal wall are difficult to influence. Vaginal treatment is much more simple but in this case the great danger lies in producing injury to neighboring organs, the bladder, the rectum, the bowel and the uterine artery. All operable cases upon which for some reason operation cannot be performed are adapted to this treatment as well. Inoperable cases or recurrences. Radical operations followed by prophylactic exposure to mesothorium is especially to be advised. Mesothorium combined with the deep penetrating X-rays and intravenous xyl injections, is excellent.

M. SAUER

Gumakoff L. The Question of Cystic Degeneration of Uterine Myomas. *Zur Frage der cystischen Degeneration der Uterusmyome*. *Zeitschr. f. Geburtsh. Gynäk.* 93, 1916, 75.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb. The patient was a woman 39 years of age. She had had one spontaneous delivery and one abortion. For over a year the menses were regular yet much more profuse than before and she complained of general weakness. For several months hemorrhage persisted without ceasing the abdomen became enlarged and the general weakness increased. Examination showed a tumor arising from the uterus or the ovary. At operation elastic tumor the size of child's head was found. It was multilobular and eccentrically developed and was situated in the mesometrium on the right uterine wall. The patient recovered.

Examination of the tumor showed it to be myoma with cystic degeneration. Microscopically the tumor tissue was different from the smooth musculature of the uterus. It consisted of cells with round or oval nuclei and the stroma was poorly developed. Several places still showed isolated strands of smooth muscle fibers and connective tissue bundles.

The cause of the degeneration was poor nutrition, such as occurs in thin-pedicled, subserous, or intraligamentous myomas. The symptoms of such degeneration are not constant. According to Winter severe hemorrhage occurs in 74 per cent of the cases. The growth is not rapid. Hemorrhage, enlargement of the abdomen, general weakness, and the danger of sarcomatous degeneration are indications for operation.

G. SAUER

Langes Experiences with the X-Ray in the Treatment of Myomas and Metropathies. (*Erfahrungen mit der Röntgenbehandlung bei Myomen und Metropathien*). *Munchen med. Wochenschr.* 93, 1916, 740.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

Twenty-four cases of terine myomas and fifty cases of hemorrhagic metropathies were treated with the X-ray. The technique at first was that of Albers-Schönberg. Later 3 to 4 mm. aluminum filters were employed, and three fields in the lower abdomen and in the sacral region were exposed. In severe cases the perineal and vaginal fields were radiated, lead glass tube being employed for the vaginal application.

In severe injuries were observed, but skin pigmentation was frequent. Intoxication phenomena were extremely mild. There was diarrhoea and symptoms of ovarian insufficiency were not marked. Of the fifteen cases of myomas carefully observed, eight resulted in amenorrhoea, and in oligomenorrhoea, 11 of these fourteen showing definite retrogression of the tumor. The fifteenth case resulted in failure due to imperfect technique. Of the thirty-nine cases of metropathies, thirty-four resulted in amenorrhoea, nine in oligomenorrhoea, and remained unchanged, and one was aggravated so that vaginal total hysterectomy had to be performed. All of the seven failures must be attributed to the insufficiently developed technique that was employed at first. With the present technique no failures have occurred. Improvement began after two or three series of exposures.

RUY

Plüsch, A. Mesothorium in the Treatment of Hemorrhagic Metropathies and Myomas. (*Die Mesothoriumbehandlung bei hämorrhagischen Metropathien und Myomen*). *Deutsche med. Wochenschr.* 93, 1917, 64.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

The mesothorium treatment of hemorrhagic metropathies and of hemorrhages due to myomas is a valuable addition to our therapy. Similar to the action of the X-rays, the hard rays of mesothorium produce a gradual atrophy and sclerosis of the uterine tissue and therefore, indirectly, an oligomenorrhoea or an amenorrhoea. A direct influence upon the uterine wall or upon the tumor has not been demonstrated and is not essential.

The method of applying the treatment is of advantage to the physician as well as to the patient. The mesothorium is placed into the vagina in little capsules and exerts its influence upon the ovaries from there. The author has not employed the intra-uterine application, as with that method the rays must first penetrate the uterine wall and consequently are weakened. Furthermore, he does not consider a direct effect upon the uterus and tumor necessary.

The treatment is indicated in those cases in which no improvement follows curettement and cauterization. Malignant degeneration of course must be

excluded by a careful histological examination. Patients approaching the menopause (30 years of age and upwards) are the best subjects since the reproductive functions are injured. The symptoms incident to ovarian atrophy are about the same as those that occur after operative castration and are mild. The author believes that this new method will supplant operative procedures. II

II Lohmeyer F W Uterine Sclerosis, Arterio-sclerosis Uteri and Its Relation to Uterine Hemorrhage (Die Gebärmutter- u. Nervenkrankheiten, und deren Zusammenhang mit den Uterusblutungen) Arch f G 84 9. 3. 21

By Zentralbl f d ges Gynäk (Geburtsh. u. Gynäkol.)

The author discusses the difference between infectious metritis and sclerosis uteri, both of which may cause profuse metrorrhagia and are characterized by abnormal enlargement of the body of the uterus. In infectious metritis, however, the inflammatory process is seen chiefly in the uterine tissue without participation of the blood vessels, while in sclerosis, the perivascular processes are involved. In the history of the cases, hereditary signs of chronic rheumatism et al. and past infections are met with. In uterine sclerosis special attention must be paid to the condition of the blood vessels, which show arteriosclerotic changes in typical form and the changes and diminution in the quantity of the elastic structure of both the uterus and the blood vessels.

The dependence of uterine hemorrhage upon arteriosclerosis uteri has not been generally recognized, but the majority of the investigators are of the opinion that the changes in the vessels play the chief rôle. Differences of opinion still exist as to the condition of the elastic tissue in arteriosclerosis. All investigators, however, agree that it increases in amount. A succinct description of three cases observed by the author is given. In these the uterus was ectoposed on account of uncontrollable hemorrhages. In all three cases the typical picture of the so-called sclerosis uteri or its vessels were found and also necrosis of the vessel walls. The author considers the hemorrhage a result of the changes in the vessels due to the disappearance of the elastic elements in their walls. III

Ziegensoeck Chronic Parametritis and Displacements (Parametrit chronisch und Luxationskrankheiten) Deutsche Gesellschaft f G 84 11. 1. 17

By Zentralbl f d ges Gynäk (Geburtsh. u. Gynäkol.)

Ziegensoeck expresses himself as opposed to the view recently expressed that there is no such thing as parametritis chronica and that such conditions are really due to chronic peritonitis. He points to the parametritis acuta purpuralis of Virchow which frequently develops into the chronic form. He mentions also the work of König, Rothborn, Freund, and his own work, and refers further to the older points in the differential diagnosis between para-

metris chronica and peritonitis mentioned by Schulze. To the latter he adds three new points. (1) an apparent downward bulging of the vaginal vault on the affected side (2) a movability of the fixed uterus in the direction of the diameter of the pelvis in parametritis, whereas in chronic peritonitis the movability is more in the direction of segments of a circle and (3) the fact that the parametric induration can be seen with the aid of a grooved speculum.

In regard to treatment, ventrofixation according to the method of Broeze is too uncertain and too formidable a procedure. Finkler proposed lengthening the fold of Douglas by implanting into it peritoneum from the omentum. To cure an induration of connective tissue he does the same thing as is done when a piece of skin is implanted for the correction of Dupuytren's contraction of the palmar aponeurosis. Massage and stretching is etiologically the correct method and cure results in short time.

Ruvonkova-Szwolitch, A. A. Mud and Mineral Baths during Menstruation (Bäder- und Mineralbäder während der Menstruation) Ztschr f Gynäk 84 9. 3. 21 73

By Zentralbl f d ges Gynäk (Geburtsh. u. Gynäkol.)

The author reports the results of the employment of warm and hot baths in cases during menstruation. Eighty were cases of dysmenorrhea. Her conclusions are as follows:

Mud baths, warm or hot, regulate the bleeding. The duration of the period is not influenced very much and is shortened rather than prolonged. The pains either cease entirely or are much decreased.

3. The general condition is not influenced unfavorably.

According to Strassburger the favorable influence exerted by the baths is due to the fact that they irritate the skin and in this way produce a contraction of the peripheral blood vessels. The contraction soon disappears and is followed by a dilatation of the blood vessels of the skin and contraction of the vessels of the internal organs. Conclusion.

Sweeney T T Leukoplakia Uteri. Am J Obst. N Y 9 3 1910 213

By Surg Gynec & Obst.

The author reports in detail a rare case of leukoplakia of the cervix, giving the history and the pathology and gross and microscopical drawings. He also reviews the subject with reference to the eight cases that have been previously reported in the literature. He draws attention to the tendency of leukoplakia to cancerous change and in cases of leukoplakia of the cervix, advises early and complete excision of the affected area. N Smoot Haver.

Rieck, A. The Indications for and Technique of Defundatio Uteri (Zur Begründung und Technik der Defundatio uteri) Frauenarzt, 9 3. 21 11, 212

By Zentralbl f d ges Gynäk (Geburtsh. u. Gynäkol.)

Oblique resection of the body of the uterus is an operation for the relief of profuse menstrual periods

and is called defundatio uteri. The author emphasizes his priority in devising the operation. The advantages of this procedure over that of total extirpation are (1) the much shorter time necessary to perform it, 30 to 45 minutes, and (2) the much simpler technique. The size of the uterus, adhesions, and even pyosalpinx, need not contraindicate it. The extraperitoneal method is to be preferred. By it peritoneal irritation and the other disturbances that follow total extirpation are avoided. The stump into which but few ligatures are placed causes no peritoneal irritation, but suppurative or fetid inflammation of the extraperitoneal wound does occur. The principal advantage lies in the fact that menstruation is maintained whereas in total extirpation amenorrhoea ensues. Uninterrupted recovery is the rule. SCHNEIDER

ADRENAL AND PERIUTERINE CONDITIONS

Helmann, F. The Internal Secretion of the Ovaries and Its Relation to the Lymphocytes (Innere sekretorische Funktion der Ovarien und ihre Beziehungen zu den Lymphocyten). *Zschr. f. Geburtsh. Gynäk.*, 93, 1, 100-113.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

The thymus has the power to increase, and the ovaries, the power to decrease the number of lymphocytes. An increased internal secretion of the ovaries leads to a decrease in the number of lymphocytes, and a diminished secretion, to an increase in the lymphocytes. Helmann determined that in the intermenstruum the normal number of small lymphocytes is from 8 to 10 per cent and that during menstruation the number is considerably increased. An increased number of lymphocytes is found also in processes which cause hypoplasia, or disturbed function, of the ovaries, such as amenorrhoea and the climacterium. However after the menopause has existed for some time, decrease is noted. Cases of inflammatory adnexal disease which are accompanied by fever can also be used in these investigations. In afebrile adnexal disease the number of lymphocytes decreases, and in various tumors it increases. The number can be markedly lowered by the use of ovarian extract. BOYD

Kloss, H. A Case of Sarcoma Developing Within the Ovary with Metastases in the Great Omentum (Ein Fall eines im Ovarium des Ovariums entstandenen Sarkoms mit carcinomatöser Metastase im grossen Netz). *Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.*, 93, 1, 100-113.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

Most of the sarcomas involving ovarian teratomas have originated within the ovary and invaded the teratoma secondarily. Sarcomas developing within a teratoma are far rarer occurrences.

The author reports a case belonging to the latter class. The tumor was the size of a child's head and consisted of a unilocular cyst inside of which at four different places little tumor nodules were developing. The metastatic tumor found in the omentum

was the size of a man's head, firm and solid. Microscopically the walls of the cyst showed the picture of genuine teratoma, and the isolated nodules, the picture of a spindle-celled sarcoma. The metastatic tumor showed the same structure as the primary tumors. ELLER

Uleiko-Strogonoff. Carcinomatous Degeneration of Ovarian Cysts (Zur Frage der carcinomatösen Degeneration vom Ovarialcysten). *Russk. med. St. Petersburg*, 93, 11, 604.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

During the last four years two hundred and two ovarian tumors have been operated upon in the Gynecological-Obstetrical Institute of St. Petersburg. Ten were solid tumors and one hundred and ninety-two were cystic tumors. Of the latter eighty-four were simple cysts, thirty-one, cystic embryomas, fifty-three, proliferating cysts, and twenty-two carcinomatosely degenerated cysts. Thirty-three of the proliferating cysts were glandular and twenty papillary. In the opinion of the author the carcinomatosely degenerated cysts originated from the proliferating cysts.

From his examinations of these cysts the author draws the following conclusions: (1) Proliferating cystic tumors are transitional forms between benign tumors and tumors undergoing carcinomatous degeneration. (2) The epithelial hyperplasia which characterizes these forms shows this tendency toward malignant degeneration. (3) The relation of the proliferating cystic tumors to the malignant cystic tumors proves the origin of the latter. (4) In the cysts showing carcinomatous degeneration, proofs are evident that they have developed from pre-existing proliferating cysts. BOND

Balsch. The Removal of Blood from the Peritoneal Cavity Following Rupture of the Tubo-ovarian Cyst (Zur Behandlung des bei Tubenruptur in die Bauchhöhle ergossenen Blutes). *Monatsh. f. Geburtsh. u. Gynäk.*, 93, 1, 100-113.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

Balsch recommends the complete removal of all blood from the peritoneal cavity in cases of hemorrhage following a rupture of the tube. It should be allowed to remain only in those cases in which the patient condition demands a brief operation. He considers the presence of blood in the peritoneal cavity as an added factor in the development of peritonitis, since blood is an excellent culture medium. It aggravates the subjective symptoms of convalescence and increases the danger of post-operative adhesions. ZWISLOCKY

Hannow, W. Affections of the Adipose Tissue in Pregnancy (Die Adipositas in der Schwangerschaft). *Ergeb. d. Chir. u. Orthop.*, 93, 1, 604.
By Zentralbl. f. d. ges. Gynäk. Geburtsh. u. d. Grenzgeb.

This article is based upon observations made in the gynecological clinic in Breslau. As causes of

the inflammations of the adnexa are found the gonococcus, streptococcus, taphylococcus, diplococcus lancidolatus, bacterium coli bacillus typhosus the tubercle bacillus, actinomyces, and Friedlander's bacillus. Fifty per cent of the cases were due to the gonococcus and only four and one half per cent to the tubercle bacillus. Jones believes that when a vaginal inflammation is accompanied by appendicitis the latter is secondary to, and not the cause of the former. According to the pathological anatomy he classifies adnexal inflammation into three large groups: (1) Those that exudate formation; (2) the lumen of the tube and the formation of a total pyrexia; (3) Those with peritoneal inflammation and the formation of numerous adhesions. The latter form is often only latent stage of the former.

In discussing the diagnosis the author recommends puncture of the pouch of Douglas but this should be done only when there is no suspicion of the presence of a hernia. The preparation of gonococcus vaccine he perfectly disbelieves of great value in the differential diagnosis. The local reaction following the injection of old tuberculin also of great diagnostic value. If diagnosis is and adnexal current merit for diagnostic purposes as non-tuberculous affection of the adnexa may react identically with such procedure.

His conclusions are that saline cathartics inflammatory conditions are not tangere if operative interference and that the later brown inflammation condition. It is also surprising the most conservative live need the operation be and the better and more permanent the result. After nine to twelve months based on compliance all has become sterile. If the conditions demand an intervention during the menstrual period the abdominal route is to be preferred as it permits more conservative operation. The thorax inhibits particular value to the V-shaped extension of the tube ends of the tube and is useful in the same in case the uterus can be saved. Other cases, and when there is much abscess the methods of Jones, Kelle and Beutner with previous ligation of the uterus, greatly facilitate the resection of the adnexa from this point for drainage purposes, which is indicated only in tuberculous, the author employs the tampon through the lower angle of the abdominal wall in cases in which the presence of infectious pus is suspected, or in which oozing takes place. In cases in which the tubal extremity is closed only by the formation of adhesions around the tube he advises the salpingo-omato-plastic operation to permit the possibility of later pregnancy.

In discussing tubal pregnancy the author advises the employment of puncture of the pouch of Douglas for the differential diagnosis of hematocoele and perforative appendicitis. In cases of internal hemorrhage he advises immediate laparotomy even in collapse, with careful removal of all blood. Even if there is no internal hemorrhage, he

recommends operative treatment in all cases of unruptured tubal pregnancy in ruptured pregnancy and in hematocoele in which there is recurrent hemorrhage and in suppurative hematocoele. The resection of the other tube to prevent recurrence of ectopic pregnancy is not deemed justifiable on the contrary he advises the salpingo-omato-plastic procedure on this to be also, that later term pregnancy may be possible.

WATSON.

EXTERNAL GENITALIA

Bondy O. Vaginal Bacteria and Endogenous Infection (Subclinical and endogenous infection). *Zeitschrift für Geburtshilfe u. Gynäk.* 3, 1904, 604.
B. Zenker and J. G. Grawitz. *Geburtsheilkunde u. Gynäk.*

The author attacks principally the views of Bondy and Sigwart regard to endogenous infection. A strict separation of the germs of the external genitalia from those of the vagina is impossible. It disputes the statement that saprophytes are not to be found in women who have not been subjected to vaginal examination. It does not recognize the tenets of Bondy and Sigwart concerning the pathogenesis of the vaginal streptococci on account of their defective animal virulence. The question of self-sterilization of the vagina should be entirely dropped, for as soon as the endogenous infection commences during labor at the time of the rupture of the amniotic sac the power of self-disinfection of the vagina ceases on account of the changed composition of the vaginal secretion.

DIETRICH.

Jack, W. R. Vacci Therapy in the Treatment of Gonococcal Proctitis. *Glasgow Medical Journal*.
By Surg. Grace & Chas.

In the cases treated by the author the results obtained are as follows. A cure was effected in three cases in the first two after two and half months of treatment, and in the third after over three months of treatment. In another three cases the condition remained unaltered one case after two months of treatment, another after five months, and in the third after more than five months.

The results in this short series are disappointing although there was marked lessening of the discharge and freedom from the irritation which is often found when serines are not used. The very favorable reports which have been given by some authorities have not been corroborated by other investigators. In the Vanderbilt clinic two hundred and sixty cases were treated by the irrigation method and eight cases by vaccine. The percentage of recoveries was sixty with the former method and ninety with the latter. The time required for cure was six months with the irrigation method, and seven months with the vaccine method. These statistics are very encouraging, but the author hesitates to accept them, since other authorities give so much

encouraging reports. The most that the author claims for the vaccine treatment in cases of vulvovaginitis in children is that it causes a marked amelioration of the symptoms and lessening of the discharge.

J. H. SKILLMAN.

Hofmann O. The Iodin Treatment of Gonorrhoea in the Female. *Intern. M. J.* 9 3, 733. By Surg., Gynec. & Obst.

In the acute cases a smear is made from Skene glands and the urethra, and several from the vagina and the vulvo-vaginal glands. When the cause of the infection is found the labia are separated and the parts exposed swabbed with a solution of 3.5 per cent iodine crystals in 95 per cent alcohol. Next, few drops of the solution are injected into Skene glands and the vulvo-vaginal glands by means of a hypodermic syringe with blunt needle. The vagina is then swabbed with the patient in the Sims position and with the aid of Sims's speculum. A strip of gauze is next introduced.

In protracted cases in which the cervix and uterus are involved, the cervix is first painted and then douching of the iodine solution is injected under low pressure into the uterine cavity. This is repeated four or five times every three days.

In all cases copious hot douches are given followed by 5000 permanganate solution. The bowels are kept open by cathartics. Tea, coffee and alcohol are forbidden.

EDWARD C.

MISCELLANEOUS

Callen, T. S. Address in Gynecology. *Canad. M. Ass. J.* 9 3, 653. By Surg., Gynec. & Obst.

The author presented this paper to urge the medical profession to bring before the laity the necessity of an early operation in cancer. That the campaign which has already been started has yielded results is shown by the communications the author has received from different surgeons. He states that it is the duty of the medical profession to impress upon the laity the fact that cancer is a local process which can be cured if taken early enough. He believes that the same change of attitude can be brought about in regard to cancer as obtains now in regard to appendicitis. Twenty years ago it was difficult to persuade a person to be operated for appendicitis. To-day when the diagnosis has been made the first question is "What hospital shall I go to?"

The author next discusses the diagnosis of cancer of the skin, lip, tongue, stomach, intestine, rectum, breast, and uterus, touching upon them lightly. He quotes two cases in detail of myomatosis of the uterus with adenomyoma of the cervix and rectum, associated with rectal fibroids and denoma of the left broad ligament intimately connected with the rectum.

He urges the practitioner to become well informed in regard to the pathological and anatomical structure of the part affected, so that it will be possible for him to know the paths along which the cancer

usually travels. It would be folly to operate a case of cancer of the rectum if the liver were involved.

Callen further urges that hospitals become more business-like in their methods, also that cases be followed so that the result of the cancer operations can be definitely known. He suggests that a special clerk be assigned to follow up cases of this kind and report the results of the operations.

EDWARD L. CORRIELL.

Mahler G. E. Röntgenotherapy in Gynecology. *T. Am. Rad. Ray Soc., Boston.* 9 3, Oct. By Surg., Gynec. & Obst.

Röntgenotherapy in gynecology is now recognized as a valuable factor in the treatment of uterine fibroids, terin hemorrhage of metropathic origin, and a number of other affections to a lesser extent.

The author experiences in the treatment of fibroids limited to seven cases, extended over a period of ten years. The greater number of cases occurred during the past seven years. The results were most satisfactory in that a menopause was produced the hemorrhages were controlled and the tumor gradually disappeared. In some instances the tumor continued to disappear long after the treatment had been stopped.

The treatments were given in series, each series involving full dose administered through four different areas of the skin. When circumstances demand these four areas can be treated either in one day or on four different days. The treatment is then not repeated until three weeks have elapsed. A cure usually requires from four to six such series of treatments.

The following conclusions were drawn

Röntgenotherapy is the method of choice of hemorrhage in patients approaching the menopause in whom carcinoma can be eliminated.

It is not the method of choice in patients under forty years of age.

3. It can be recommended in all cases of any age in which operation is contra-indicated.

4. For the differential diagnosis, in order to determine the indications for this treatment, special skill in gynecology is required and for the proper administration of the rays, special training in roentgen technique is necessary. It is possible for a gynecologist to become a roentgenologist. It is also possible for a roentgenologist to become a gynecologist, but it is very unlikely that either will master both. Therefore the author believes that each case should be examined by a gynecologist and treated by a roentgenologist.

Heinsius, F. The Cystoscopic Diagnosis of Uteral Calculi and the Removal of It by the Vaginal Route. (Über die cystoskopische Diagnose eines Uterussteins und seine Entfernung auf vaginalem Wege.) *Ztschr. f. Geburtsh. u. Gynäk.* 9 3, 441.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

In 47-year-old female patient, who was taken ill with right-sided colic and chills, a calculus in the

lower portion of the ureter was diagnosed by means of cystoscopic examination. The stone was removed by the vaginal route by exposing the ureter in the left parametrium and locking it. Uninterrupted recovery resulted. *Bovva.*

89 1er J B The Modern Diagnosis and Treatment of Gynecological and Obstetrical Patients with Syphilis. *N Y M J* 9 3, 1915, 357 By Eury Gyroc & Obst

The author dwells upon the biological diagnosis of syphilis in gynecological and obstetrical patients by the complement fixation and latex skin reactions and provocative salvarsan administration. The consideration of greatest importance is the experience and dependability of the biologist who conducts the tests. The value of clinical evidence as well as the worth of diagnostic treatment should not be lost sight of when such evidence conflicts with laboratory tests. Treatment should be initiated as soon as diagnosis has been made. Squier uses neosalvarsan almost entirely.

Neosalvarsan has the following advantages in comparison with salvarsan (1) It is more simple to prepare (2) it minimizes the number of preparation ingredients, thereby reducing the possibility of faulty technique (3) it does not require as large volume of fluid for injection.

Conditions necessitating caution in the administration of neosalvarsan are chronic alcoholism, myocarditis, arteriosclerosis, and lesions of the cerebrospinal system. The neosalvarsan medication is supplemented with a intensive mercurial treatment continued in earlier cases from six months to a year and in later cases for a somewhat longer period.

The author sums up his conclusions as follows (1) Treatment should be begun the moment diagnosis is certain (2) to insure success it must be as intensive as regards the administration of both arsenic and mercury as the history of the case and the patient's physical condition will warrant (3) under no circumstances should the physician attempt to treat disease of such widespread effect and sinister influence without having given much study to the present conception of the management of the disease. *Hrs. Schmitt.*

81gwart, W Bacteriological Control of Asepsis During Gynecological Laparotomies (Die bakteriologische Kontrolle der Asepsis bei gynäkologischen Laparotomien) *Arch f G u N* 9 3, 1915, 381

By Zentralbl f d ges Gynaek Geburtsh u Gynäc.

The bacteriological control was extended to Bunn's clinic so that not only a bouillon culture was used in the three-sponge test, but the number of germs present was approximately determined by cultures on agar plates. This control was carried out in 14 major abdominal operations. In 86 per cent of the aseptic operations the bacterial content was small. Streptococci were found only twice and

bacteria in all other cases. Numerous germs were always obtained from septic operations, the staphylococcus albus and aureus and the bacillus coli predominating. Streptococci were found twenty-three times in seventy-one cases. This difference was plainly marked in the healing of the wound. Not a single disturbance in the course of healing was observed in spite of the presence of streptococci. A positive prognosis as to wound repair cannot be made from the bacteriological findings at the time of operation. The investigations, however, justify the conclusion that the healthy peritoneum accommodates itself to a relatively large number of weak virulent germs. Connective tissue wounds must be carefully dried from blood, all bleeding and oozing must be arrested, and all wounds must be carefully covered with healthy peritoneum, the visceral coat being used eventually for this purpose. *Lawson.*

J Nett, IL The Surgical Treatment of Pelvic Thrombosis of Septic Origin. *Surg Gynec & Obst* 9 3, 1914, 147 B Surg Gynec & Obst

The treatment of puerperal pyemia is of such importance that any procedure that offers any hope of an improved mortality rate is worthy of consideration. The author, having seen in the post mortem room apparently operable cases of pelvic thrombosis the result of pyemia, decided to operate on similar cases in future. In the article he records three cases of this kind all of which the initial history was characterized by recurrent rigors, high temperature and rapid pulse.

In the first case on the fifteenth day swelling was found in the right broad ligament. It opened the abdomen and removed large thrombosed and suppurating ovarian vein round which was a considerable amount of cellulitis. The patient rapidly improved.

In the second case he did not operate until the thirty-fifth day as owing to absence from the hospital, he had not seen the patient before. In this case he removed a tense cord-like structure, which turned out to be thrombosed ovarian artery and he also removed the ovarian vein, which contained small thrombus in its lower part. The patient had a few rigors after the operation, but they disappeared, and her temperature fell to normal and remained so.

In the third case very similar condition that met with in the first was found at operation, except that it had gone much further. Septic peritonitis was on the point of starting the whole length of the ovarian vein contained pus, and there were two abscesses beside the vein. The patient improved for a few days after the operation, then gradually lapsed, until on the thirteenth day after confinement she was as bad as before the operation. A hysterectomy was performed. The patient improved temporarily but rapidly became again seriously ill, and died on the thirty-fifth day with symptoms of septic involvement of the lungs.

The author describes also two cases of pyemia without obvious thrombosis. In the first case he performed a hysterectomy but without benefiting the patient. In the second case he tied the ovarian veins, and recovery began at once and continued.

In conclusion, the author refers to the interesting fact that in all of his cases the thrombosis was on the right side, and primarily in the ovarian vein alone. He considers that such cases always call for operation, and that it should be performed as early as possible to anticipate conditions such as were found in the third case. He considers that the diagnosis is the important point, and that, as a rule, it can be made from the symptoms of the patient taken in connection with a thickening or swelling in the broad ligaments or along the course of the veins not accompanied by much pain.

Lampé Basedow Disease and the Genital Organs (Basidowische Krankheit und Genitale). Deutsche Gesellschaft für Gynäk. u. Geburtsh. 9. 3. 31. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

It is evident from the literature and the reports of Frankl and Graff that there are clinical facts which indicate relations between Basedow's disease and the genital organs. Next to the disturbances in menstruation, it is the hypoplastic changes of the genitalia in exophthalmic goiter that are of chief interest to the investigator and that are interpreted as indicating decrease in the functioning of the ovaries. Particularly in permanent ovarian hypoplasia we do not know whether there is really hypofunction, an atrophy, or even dysfunction of the ovary for the anatomical character of an organ does not permit of a conclusion as to its function. For this reason also the belief in the existence of a relation between Basedow's disease and the ovaries based merely on the clinical facts have been mentioned would for long time have remained mere theory if we had not acquired a method by which we may obtain an insight into these complicated relations and determine an existing ovarian dysfunction positively. This method is Abderhalden's protective ferment reaction, and the theory upon which it is based is as follows: If in Basedow's disease, the activity of the ovary is qualitatively disturbed, i.e. if the ovary gives off an abnormal substance into the blood stream, the organism as a whole should react to this product of dysfunction, which is foreign to the blood, by producing protective ferments against it. These ferments ought to be detected by the Abderhalden reaction.

Proceeding from this theory the blood of patients suffering from exophthalmic goiter was examined for protective ferments. The serum of the patients was brought into contact with thyroid gland, thyroid, ovary testicle kidney adrenals, and liver

By the use of the ninhydrin test it was determined which of these organs were split. The thyroid gland was split in all, and the ovaries and thymus in most of the twenty five cases of genuine exophthalmic goiter so far examined. The tests with the other organs were always negative. The results of these tests are to be explained as follows: (1) The first abnormal step in exophthalmic goiter is a dysfunction of the thyroid gland. (2) Also in most cases the functioning of the thymus gland and the ovaries is abnormal. In most cases of Basedow's disease it is possible not only to demonstrate the functional changes, but also to determine the nature of the abnormal function. The question now arises as to whether the dysfunction of the ovaries

in exophthalmic goiter is primary or secondary. It seems evident that it is a secondary disturbance. The product of a dysfunctioning thyroid gland has ovanotrophic significance, which means that it invades the ovaries and influences the activity so that dysfunction results. Finally we must refer to the fact that disturbance of the ovary is indicated by none of the symptoms of exophthalmic goiter. This is the exaggerated growth in stature of patients suffering from exophthalmic goiter which was first mentioned and studied by Holmgren, and which depends on an abnormally long persistence of the epiphyses.

The well known investigations of Sellheim concerning the influence of castration on the growth of the bones permit us to regard the disturbances of the germinal glands as the cause of the delayed ossification of the epiphyses in the long bones of patients suffering from exophthalmic goiter.

Gegenbach Precocious Menstruation. J. f. d. Med. 4. 1. 31. 9. 3. 31. By Surg., Gynec. & Obst.

The report of a case of precocious menstruation is given with a discussion of its probable cause. The patient, a child two years of age, bottle fed, had the first menstrual flow lasting three days, when 10 months old. Menstruation recurred at intervals of one to three months, most frequently at intervals of six weeks. For a few days before the periods a slight leucorrhoea was noticed. The child was cross and acted as if in pain. The peculiar menstrual odor was very marked. It was necessary for the child to wear napkins during a period of about a week. Its weight was 21.5 lbs. and its height, 39 inches. It had 8 teeth. The circumference of the head was 19 inches. The measurement of the chest below the breasts was 15 inches and across the breasts, 23 inches. The abdomen to the navel was 14 inches and the pelvis 23 inches. The breasts were noticeably prominent, and there was a growth of hair under the arms and about the external genitalia.

HENRY SCHULTZ

lower portion of the ureter was diagnosed by cystoscopic examination. The moved by the vaginal route by exposure in the left parametrium and incision ruptured recovery resulted.

Bq ler J. B. The Modern Diagnosis of Gynecological and Obstetrics with Syphilis. V. F. M. 35 H. Sunk

The author deals upon the biology of syphilis in gynecological and obstetrics by the implement first and then the prevention and treatment. The consideration of great importance and dependability of the conducts the test. The value of all the orth diagnosis is not lost sight of he such as laboratory test. I think it should soon as diagnosis has been made neonatal man must not be compared to the adult. It prepare the ingredients thereby the faulty technique is the volume of fluid for the

C and the neonatal man must not be compared to the adult. It prepare the ingredients thereby the faulty technique is the volume of fluid for the

The the sum of the and () Treatment should be given to the and mer re he has the the tent ph and milt in li arr circumst as should the phys treat dis x i u h de end fluca the t ha ng x en the press t on p t the m disease

Bq art W. Bacteriological Gynecology. I. par. During Gynecology. I. par. Bq art W. Bacteriological Gynecology. I. par. During Gynecology. I. par.

The bacteriological control during clinic so that not only was used in the three sponge for the of germs present as appropriate cultures on agar plates. This is a major abdominal operation of the aseptic operations the small Streptococcus re fou.

interruption of pregnancy. The kidney was gradually closed and the patients went on to spontaneous labor.

While it is obvious that surgical interference is not demanded in all cases, it should be carried out promptly in many.

Engelberg E. Ectopic Pregnancy in the Ovarian Ligament: Contribution to the Anatomical Diagnosis of Advanced Cases (Ectrahäufigkeit extralokaler Eileiterschwangerschaft, die Befunde der anatomischen Diagnose vorgeschrittener Fälle). Munchch J Geburtsh u Gynäk 39 3, 1907, 342. By Zentralbl f d gyn Gynäk Geburtsh d Gynäk

The author gives a detailed description of ectopic pregnancy in the ovarian ligament. He found that the tube was obstructed and the foetus was dead. He substantiated his diagnosis by macroscopical and macroscopical examinations. He concludes that the ectopic lodgment of the ovum was due to a pelvic peritonitis caused possibly by appendicitis.

JACOB

Baldwin, J. F. Cesarean Section with Hysterectomy in Cases of Positive Infection. J. F. M. J. 9 3, 1907, 372. B. Surg G. m. & Obst.

Baldwin cites a case of primipara 29 years of age at full term. She had had pains for 1 day when the bag of waters ruptured. The pains had entirely ceased and forceps delivery was impossible because the blades would not lock. The patient was exhausted, pulse 30 temperature 101° F. The child was large, presented at the brow and was alive. A Cesarean section as advised in the later part of the child and hysterectomy in the interest of the mother. By proper procedure it was hoped to prevent infection of the peritoneal cavity. A low incision was made and the uterus brought entirely out of the abdomen. The abdominal cavity was protected by towels all around. The child was delivered rapidly. In the interior of the uterus a large necrotic patch was found. The uterine cavity was flushed with tincture of iodine which ran down through the cervix into the vagina. A supravaginal partial hysterectomy was then completed, except that one ovary was saved. The appendix was removed. The incision was closed without drainage. The temperature fell immediately and the patient made an uneventful recovery.

LIBRARY SCHMIDT

Petersen, R. The Indications for Abdominal Cesarean Section. Surg G. m. & Obst 9 3, 1907, 381. By Surg Gynec & Obst

The author discusses some of the more important and common indications for abdominal Cesarean section. He advocates conservatism in obstetrics and denounces the practice of solving all obstetrical problems by abdominal Cesarean section. He is of the opinion that with the modern aseptic technique Cesarean section should, in measure, take the place of the high-forceps operation.

First, under the heading, "obstructions to labor" the author considers contracted pelvis. He calls

attention to the uncertainty of pelvic measurements and advocates, in moderate contraction of the pelvis, that the patient be given rest of labor. Patients who are undoubtedly infected due to repeated vaginal examinations and unsuccessful vaginal manipulation, should not have the abdominal Cesarean section performed. In such cases craniotomy is preferable. Labor is sometimes obstructed by uterine fibromyomata which may be cervical or intraligamentous in location. The majority of women having fibromyomata do not carry the child to full term because changes occur in the decidua. The Porro Cesarean section is indicated here fibroids obstruct the canal. Ovarian cysts so located that reduction of the size of the uterus prior to their removal is necessary form indication for Cesarean section.

Stenosis of the cervix and vagina due to scar tissue originating at previous cesarean section is also discussed. This condition makes spontaneous delivery impossible and artificial dilatation of the os is dangerous compared to Cesarean section. Previous retro- and ante-fixation of the uterus sometimes give rise to distention and thrombosis of the posterior uterine wall during pregnancy. In this case Cesarean section is preferable to attempt delivery from below. At times in normal uterus the large fibroid bulk of the uterus.

Where severe concealed placental hemorrhage is taking place the mother's condition alarming and growing worse and the cervix rigid as it requires considerable time to relax it is enough to empty the uterus better result will be obtained by a laparotomy.

In discussing eclampsia the author states that when the pelvis is contracted and the likelihood of no chance of sepsis, abdominal Cesarean section has given good results. In 245 cases of eclampsia treated by this method, the maternal mortality was 4 percent. In 37 cases the fetal mortality was only 5.5 percent.

Baldwin J. F. Two Unusual Cases of Ectopic Pregnancy; On Triplet. *J. Am. Med. Ass.* 9:3, 1910. By Surg. Gen. & Obst.

The first case was that of a patient thirty-seven years of age who had been married nineteen and half years. She had three children the youngest at sixteen years old. Her labors except for one miscarriage thirteen years before the sixth week for which there was no assignable cause were normal. Menstruation was normal and regular. The last period occurred two weeks before. An operation was performed for a proclivita which had been very annoying for the last two years. During the laparotomy bilateral tubal pregnancy was discovered. On closer examination two fetuses were found in the left tube and one in the right. The embryos were of the same size and about as large as peas. The pathologist reported that all three were embryos of the same age. The second case was an ordinary tubal pregnancy.

HENRY SCHULTZ.

LABOR AND ITS COMPLICATIONS

Gallant A. E. Prolonged Precipitate Parturition Due to Disengagement of the Diaphragm. *Head and Neck Rec.* 9:3, 1910. By Surg. Gen. & Obst.

The author reports five cases of normal-sized pelvis in which there was dystocia due to a slight malposition of the child's head. With these, corrected labor ended rapidly. In two cases forceps were applied and as the result of a too-heavy pull, the birth was precipitated and caused a severe tear of the perineum. It is possible by simple maneuvers to shorten the labor with less danger to both the mother and the child.

The manœuvres recommended are as follows: (1) External pressure on the buttocks at the fundus which exaggerates the flexion of the trunk upon itself of the hip upon the sternum. (2) External pressure on the occiput just above the symphysis, with the palm of the hand pressing the occiput down to the brim. (3) Internal pressure on the forehead with the fingers in the cervix tilting the forehead up and during each pain. (4) The introduction of a single blade of the forceps to the occiput and gentle traction during a pain to facilitate flexion and engagement. This is best accomplished by a solid blade forceps, as the head will move more readily and the bulk of the forceps will help to fill up the roomy inlet and aid the head to engage more firmly and do so more surely. (5) Guidance traction with high forceps—with loosely fitting blades. (6) High as guides and to prevent recession, care being taken not to drag too vigorously or suddenly or pay the penalty of a too precipitate delivery and tearing of the perineum. (7) The mother which could have been voided. (8) The judicious combination of two or more of these manipulations as the case may demand.

LIONEL L. CORRIE.

Bogdanowitch M. Delivery in Total Paralysis of the Body (Entbindung bei vollständiger Lähmung des Rumpfes). *Zentralbl. f. Gynäk.* 9:3, 1910.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Grenzgeb.

A xiphi-para, thirty-seven years of age had been suffering since the third month of pregnancy with a rapidly developing myelitis that began in the arms and spread to the trunk and legs. During the last weeks she suffered from urinary incontinence. On account of her hopeless condition Cesarean section was contemplated when labor contractions suddenly began. They were noticed by the attendant, but the patient experienced no pain. Within three hours the child was expelled by the breech, living but immature (45 cm. 2450 gm.). The placenta followed in fifteen minutes. There were no abdominal contractions as the abdominal muscles were paralyzed. The patient died three days later. A topey revealed fibro-endothelioma of the spinal dura mater in the region of the atlas, with compression and softening of the spinal medulla.

This case is an excellent proof of the fact that the

motor functions of the uterus are independent of the spinal cord and are stimulated from peripheral nerve centers located in the uterus. **TOWCROSS.**

PUERPERIUM AND ITS COMPLICATIONS

Werner A Case of Puerperal Tetanus with Recovery (Über einen gebürten Fall von Tetanus puerperalis). *Menschen f Geburt u Gynäk* 9 3, xxx, 67.

B Zentralf d ges Gynäk Geburt u Gynäk

On November 5 93 the patient was delivered with forceps. A perineal tear was not sutured. Ten days later the patient complained of difficulty in walking and slight trismus. The next day decided trismus set in followed by rigidity of the neck and severe difficulty in allowing no units tetanus titers (Hofstad) are administered. On the following day the muscles of the face, arm, and lower limb were affected. Repeated convulsions occurred. The temperature rose to 40°C. Four more injections of 0.001 unit in units are given but neural this next few days. Induction, vaginal douches of solution of powdered dried senna are employed. At the end of four weeks the patient was discharged cured. **ZINCKE.**

Peterson R. Emptying the Uterus as a Method of Treatment of Puerperal Eclampsia. *Am J Obst N Y* 9 3, lxxv, 30.

By Surg Gynec & Obst

In this article Peterson has made a statistical study of the results obtained in a large number of cases of eclampsia collected from the literature and draw the following conclusions:

1. Since the cause of eclampsia is still unknown, its treatment of necessity must be empirical.

2. Only through the analysis of large numbers of cases can the value of any particular treatment be correctly estimated.

3. In a large series of cases of eclampsia prompt delivery gave a maternal mortality of 3.0 per cent as compared with a maternal mortality of 8.9 per cent where the delivery was long delayed.

4. When the uterus is emptied immediately or very soon after the first convulsion the maternal mortality is still lower.

5. While before 900 in a large group of cases the maternal mortality was 5 per cent in favor of conservative treatment and spontaneous labor between 900 and 9 on account of better and more prompt obstetrical surgery the figures were reversed and showed that the maternal mortality was 4 per cent lower after the radical treatment than after the conservative treatment of the complication.

6. Therefore the treatment of antepartum eclampsia should consist of emptying the uterus as quickly as possible after the first convulsion.

7. The operative procedure that will empty the uterus most quickly and with minimum trauma and shock to the eclamptic mother and child is the one to be selected. **N. SMO. HENRY.**

Zincke, E. G. The Medical Versus the Surgical Treatment of Puerperal Eclampsia. *N Y J Med*, 9 3, xlii, 4 2. By Surg, Gynec & Obst.

The author gives a very interesting review of the statistics of the medical and the surgical treatment of eclampsia. He claims that the maternal mortality from the surgical treatment is higher than that following the medical treatment. During the past ten years he has treated thirty cases of eclampsia, with a maternal mortality of 33 per cent, and a fetal mortality of 50 per cent. Two of the mothers were moribund when seen by him and third died of shock and hemorrhage following an accouchement force performed by the doctor in charge of the case. The fourth died soon after the eleventh convulsion and a comparatively easy vaginal hysterotomy performed without an anesthetic.

Zincke advocates the following treatment. If the patient has, or has had, convulsive seizures, 5 drops (5 m. or cc.) of No. 4000 tincture of stramonium should be given hypodermatically and repeated every hour until the pulse is reduced to 60 per min. or less. If within an hour the pulse falls from 90 to 60 per min. only from 10 to 15 drops should be injected in the succeeding dose. More than two or three injections are rarely necessary to bring the pulse down to 60. A copious enema of soap water serves to wash out the large intestine. The bladder should be emptied with a catheter and the urine measured and examined. As soon as the patient is able to swallow, a saline cathartic should be administered. If this is ineffective, stronger cathartics may be given. Immediately afterward, the patient should be given a hot bath or hot pack, rubbed dry and placed in a warm bed. The bath or pack should not be given oftener than twice in one day.

The only food should be milk or broth or both. Water or Peber solution may be freely administered. The latter may be given per rectum or in urgent cases, intravenously. Chloral, per os or rectum should be given if the patient is very restless. The thorax has discarded chloroform and morphia. Ether or gas-ether is the anesthetic of choice. **C. H. DAVIS.**

Polak, J. On the Management of the Interior of the Uterus in Post Abortal and Post Partal Infection. *J Internat. Cong Med*, Lond 9 3, Aug. By Surg Gynec & Obst.

From a study of nearly 3000 cases the author draws the following conclusions: (1) The high morbidity in puerperal infection is due to a meddling interference with the endometrium by surgical methods. (2) curettage of the placental site is a potent cause of thrombophlebitis of the pelvic veins. (3) the endometrium should never be curetted in streptococcal infection, whatever the stage of the pregnancy. (4) When the inside of the uterus is not disturbed by exploration, the infection is generally confined within the uterus and peritonitic and parametric complications are seldom noted.

The author analyzes one hundred and four cases treated in his wards by conservative neglect of the interior of the uterus. In no instance was the intra-uterine content disturbed. Only three deaths occurred, a mortality of less than three per cent.

Eight-four cases followed full-term delivery. Twenty were of the post-abortal type.

These women were placed in the Fowler position for postural drainage. Ergot and pituitrin were administered freely to secure uterine contraction and retraction. An ice bag was placed over the uterus and the physical resistance was sustained by forced feeding, strychnine, vaccines, and open-air treatment. Retained material was not removed.

Intra-uterine cultures were taken from eighty-nine patients. Fifteen had a closed cervix and in these no cultures were obtained. A hemolytic streptococcus was recovered from the uterus thirty-four times, a non-hemolytic, fifteen times, combined growths, fifteen times, staphylococci alone and in combination, fifteen times. Ten cultures were sterile.

Blood cultures were made in ninety-eight cases. In forty-six streptococci of the longus or brevis types were recovered. Only two were hemolytic.

In one of the three fatal cases no organism was developed from the blood. In another the streptococcus brevis was recovered and in the third the bacteremia was due to the staphylococcus aureus.

These facts are particularly impressive when it is remembered that a hemolytic streptococcus was recovered in thirty-four uterine cultures and it would seem to confirm the author's conclusions regarding non-interference in puerperal infections.

Ströde C. Peroneus Parästhesia Post Partum (Über Peroneuslähmung postpartum). *Mischnische f. Geburtsh. u. Gynäk.*, 10, 3, xxviii, 6.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

CASE 1: The patient was a primipara, twenty-two years old, with a cephalic presentation. After a prolonged labor she was delivered by forceps on account of an increase in her temperature and an acceleration in the sounds of the fetal heart-beat. The child weighed 4360 gms. A few hours after delivery cramp-like pains in the right leg set in, and the following day similar pains occurred in the left leg. There were noted also points that were painful to pressure. On the third day there was urinary incontinence and a diphtheritic membrane appeared in the vagina and vulva accompanied by fever. Next, vesico-vaginal fistula developed to the size of a dollar. Six weeks after delivery the patient was allowed to get up. A weakness of the right leg was observed, due to peroneal paresis. An operation for the repair of the vesico-vaginal fistula was performed later and was complicated by the close proximity of the ureteral openings to the edges of the fistula. An improvement in the paresis was obtained after one year's treatment. The patient was able to walk fairly well with crutches and later

without them after the application of an elastic support for the foot. This paresis is explained by the prolonged pressure of the head in its slow passage through the pelvis. The fistula also was due to the same cause. In the literature four other cases of vesico-vaginal fistula complicated by peroneal paresis are recorded.

CASE 2: The patient was forty-two years old, a viii-para, with cephalic presentation and normal pelvis. During the second stage of labor she complained of pain on the outer side of the legs and feet. After cessation of the fetal heart tones, the anterior leg was brought down and extraction was rendered by delivery of the arms. Soon after delivery painful parasthesias set in on the outer side of the legs and feet. Paresis gradually increased until the motor and sensory disturbance was complete in the peroneal region of the left leg and partial in the right. After a year complete recovery had taken place.

The author gives a detailed account of the anatomical relations and the mechanism of nerve injury. An isolated peroneal paresis is rare; the lesions usually occurring in the lumbal plexus, and the tibial as well as the brachioradialis are involved. Paralysis of the glutei has rarely been observed, but is probably often overlooked. The latter produces a waddling gait and makes stair-climbing more difficult. The pains on the posterior surface of the thigh and outer surface of the leg are pathognomonic of the traumatic origin of the paresis coming on during labor and usually preceding the paresis. Occasionally cramp-like contractions are observed in the limb during labor. Most of the labors require forceps delivery. Paresis is recognized only after a time, usually when the patient rises on the tenth day. It is frequently bilateral, but not equal in both sides. In the crural region, neuralgias and disturbances of sensation occur never any paresis. The contracted pelvis plays an important rôle; the generally contracted type being more unfavorable than the flat rachitic. Injury to the nerves occurs much more often in cephalic presentations than in breech.

Ströde lays considerable stress on the possibility of causing injury while forcibly hinging down a foot with the breech in the pelvis. Particular care is necessary in this maneuver. The prognosis of puerperal peroneal paresis is not always favorable, dependent as it is upon the duration and force of the pressure exerted upon the nerve and upon the extent of the paresis. Duration is usually prolonged. Any pains or parasthesias occurring in the peroneal region during labor must be considered dangerous signals.

ESSENHACH.

MISCELLANEOUS

Wolff B. Fötale Hormone (Über fötale Hormone). II. Bildungsschritt. *Konstok.*, 9, 3.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The chemical influence of the germinal cells during conception the developmental importance of

the internal secretion of the fetus, the influence of the mother upon the child and of the child upon the mother during pregnancy and the relation of the fetal hormones to tumor pathology are discussed in detail. Chemotropism of the germinal cells and chemical stimulation in their development is probably an hormone function. Just as a pregnancy reaction of the maternal organism is caused by the fetal structure, so a pregnancy reaction of the fetal organs occurs through the maternal structures.

It is not certain whether or not the germinal glands and the adrenals functionate during intra-uterine life. The thyroid gland and the hypophysis are active only under certain abnormal conditions. We have only a few positive proofs that the development of the fetus is influenced by its endocrinal glands, but it may be dependant upon the hormones of the maternal organism, the uterus, ovaries, thyroid gland etc. A number of the pregnancy changes in the mother such as the changes in the mammary glands, the commencement of labor, the formation of protective ferments, the increase in the amount of antitrypsin in the blood, and intoxications are the result of the action of the fetal hormones. The pre-adolescence of women with tumors is due probably to the action of the hormones of blastomeres with embryonal tissue upon the genital organs. It is known that pregnancy influences the growth of blastomeres. GRAEFENBERG.

Rougay A. F. The Use of Fetal Serum to Cause the Onset of Labor. *M. J. S. J.* Calcutta, p. 1, 2, 109. By Surg. Genl. & Obst.

After discussing the work of Heide the author takes up his own. Rougay followed the technique suggested by Heide in making the fetal serum. He used also practically the same general plan for his experiments. The fetal serum was tried on nineteen patients. In six cases, one or more injections produced labor pains which led to the expulsion of the child. All of these patients were at least ten to eighteen days before term. Two cases of inertia responded well to the serum shortly after the injection. The urine of one patient for whom the serum was used to bring on labor because of threatened eclampsia showed albumin and casts and was scant in amount for the twenty-four hours previous. In this case 55 cc. of the serum was given in three days. The urine cleared after the first injection of 20 cc. and the patient passed 80 ounces in the following 24 hours. Her general condition also improved. In seven cases the results were negative.

During the course of their investigations, Heide and Rougay found that severe contractions of the uterus did not cause pain unless the presenting part or the bag of waters compressed the cervix or other pelvic organs. Small doses of the serum seem to cause more of reaction than larger doses. The most frequent symptoms noted by the author were chill, which lasted from two to thirty minutes, nausea, and vomiting. EDWARD L. CORWELL.

Dietrich Intrauterine Rupture of the Fetal Liver (Intrauterine extrahepatische Ruptur der kindlichen Leber). *Monatsh. f. Geburt. u. Gynäk.* 1911, xxxvi, 868. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäk.

The rupture occurred in the right lobe of the liver near the lower margin, and consisted of deep stellate tears through the parenchyma. The child was delivered with forceps on account of the prolonged labor. The heart tones were normal before the extraction was begun, but were heard at birth. Autopsy showed that the child died of internal hemorrhage into the peritoneal cavity through the hepatic rupture. ZIMMER.

Adair F. L. Care of the Umbilical Stump. *J. Am. M. Ass.* 93, 141, 577. By Surg., Gynec. & Obst.

Adair discusses the etiology pathology and clinical signs of omphalitis. He reports the bacteriological investigations carried on in sixty-five cases of new-born babies. In seventeen cases there was no bacterial growth. Non-pathogenic bacteria were found in thirty-three cases and pathogenic organisms in twelve cases. The staphylococcus was found in eight cases and the bacillus coli in four. In other words, pathogenic organisms were present on the cord and in its surroundings in nearly one fifth of the cases immediately after birth, although rigorous measures were taken to obtain aseptic conditions.

Essentials for the growth of organisms are first, the presence of germs second, the proper degree of temperature third, suitable culture media and environs and fourth, the presence of moisture. We can prevent the contamination of the parts and assist in the removal of the organisms by aseptic and antiseptic measures. The body-heat furnishes the proper temperature for bacterial growth but cannot be interfered with. The devitalized tissue of the cord forms an excellent medium. This we may remove by ligating or clamping the cord close to the skin margin. The presence of moisture may be controlled by keeping the small stump of cord under conditions which favor rapid drying.

These four conditions were fulfilled as follows. After the cessation of pulsation the cords were clamped near the skin margin and the surrounding skin and cord were cleansed with alcohol. The clamp was removed and in the groove that it had made ligature was placed. In some cases the end of the cord and the surrounding skin were painted with 50 per cent tincture of iodine and in others they were left untreated. A sterile gauze dressing was then tied over the end of the cord. The babies were oiled for three days and then washed until the navel was healed. After this, tub baths were given. Each day the surrounding skin was washed with alcohol, and the dressing changed when necessary. By this comparatively simple method even serious umbilical infections were quite effectively combated. HARRY SCOTT.

Krüger: The Care of the Nipples During Pregnancy (Warzenpflege in der Schwangerschaft) *Monatsh. f. Geburtsh. u. Gynäk.* 9 3, xxvii, 867.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäkol.

Sixty per cent of the nipples that received no preliminary prophylaxis during pregnancy remained intact during the nursing period, whereas only fifty-four per cent of those that received attention did not become excoriated or fissured. Those cases that received preliminary prophylactic attention not infrequently developed a mastitis. Krüger considers manipulation about the mammae dangerous, for he has found it to be sufficient to bring on premature delivery. **Zusatz.**

Beiley H. C. The Clinical Significance of the Urine in Pregnancy. *Am. J. Obst. & Gynec.* 1917, lxviii, 263.
By Surg. Gynec. & Obst.

The author ends his exhaustive article with the following conclusions:

1. Liver degeneration in the toxemias of pregnancy is accompanied by low nitrogen excretion. Changes have been reported also in the ratios of the nitrogen fractions.

2. Liver degeneration produced by number of toxic substances is accompanied invariably by an increase in the total nitrogen excreted, but without important changes in the relationship of the various fractions to the total nitrogen.

3. Folin's work would attribute the amino-acid desamination chiefly to the tissues.

4. Pre-eclampsia and eclampsia may show no marked changes in the nitrogen partition.

5. It is probable that except for a lowering of the total nitrogen and changes in the various fractions due to the diet and the amount of absorption, the nitrogen partition in eclampsia will show no great differences in relationship. **N. SPROA. H. K. V.**

Theompson, W. M. The Influence of the Thyroid Glands on Pregnancy and Lactation. *Surg. Gynec. & Obst.* 9 3, xvi, 26.
By Surg. Gynec. & Obst.

In this paper are presented the reports of various laboratory workers together with description of some experiments made by the author. It is shown that the sexual organs cause changes in the thyroid gland and the latter also influences the former. Thus in pregnancy there is a well-recognized hypertrophy of the thyroid that is normal. Goiter is discussed (1) as to the influence of childbearing on Graves' disease, (2) as to the influence of goiter on childbearing, and (3) as to the condition of the children of exophthalmic mothers. Clinical reports on the influence exerted by the thyroid upon lactation were cited. After reviewing the experiments of Mame and Lenhart, of Halsted of Johns Hopkins, and of Aldiger and Thiersch, the writer closes with a description of experiments made on nine pregnant dogs. These experiments showed that the removal of one lobe of the thyroid had little or no influence on pregnant dogs or on their pups after birth. The

removal of one half, on the other hand, with the ligation and destruction of the remaining portion and of the parathyroids, was followed by tetanic seizures and death of the mother and pups. Further it was shown that the total removal of the thyroid and parathyroids was followed by trembling and rigidity and that after birth of the puppies the milk was scanty and later both mother and progeny died.

Thompson's conclusions in brief are that the thyroid is a sexual gland if it originated from glandular organ in connection with the sexual structures of the Paleozoic ancestors.

A lack of thyroid secretions influences sexual activity diversely. Sexual activity whether it be physiological or pathological, causes a hyperactivity of the thyroids. Hyperthyroidism constitutes an index to the toxemia of pregnancy to counteract which the thyroids raise their antitoxic protective power. Clinical evidence supports the theory that the physiological hyperactivity of the thyroids is a valuable safeguard against the toxemias of pregnancy. **CAREY CULBERTSON.**

Polan: The Biological Diagnosis of Pregnancy (Zur biologischen Schwangerschaftsdiagnose) *Monatsh. f. Geburtsh. u. Gynäk.* 9 3, xxvii, 857.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. u. d. Gynäkol.

Although Polan's results were correct as a rule he occasionally obtained a positive reaction in non-pregnancy and a negative reaction in pregnancy. He fails to explain the cause of the error. Since all fetal organs as well as the serum and amniotic fluid come into communication with the maternal blood by way of dialysis, it is just as fair to assume that any or all of these may give positive reactions as well as the placental elements.

The serum of gestation contains more hemolysins than does that of other blood. Boiled placenta and various fetal organs, especially the lung, show a greater hemolytic activity toward the erythrocytes of pregnant than toward those of non-pregnant women. **Zusatz.**

Schwartz: The Serodiagnosis of Pregnancy *J. Am. M. Assn.* 9 1, li, 224.
By Surg., Gynec. & Obst.

The author refers to the greater value of Abderhalden's biological test as compared with Rosenthal test. He discusses the underlying principles, Abderhalden's work on cell metabolism, particularly as it regards protein metabolism, the mobilization of protective ferments in the blood, and the entrance of foreign material into the blood. He describes the dialysis method for the detection of proteolytic ferments in the blood and gives his personal experience with it.

He reports the records of twenty-one pregnant and four puerperal cases in which the test invariably gave the violet-blue ninhydrin reaction, while the controls remained colorless. He investigated also eighteen non-pregnant cases, including several tubal

enlargements and four uterine fibroids. In addition, the tests were made on two males. 1 all of these, the dialyzates of both tests and controls remained colorless.

HARRY SCHWARTZ.

Maccubreni, F. The Applicability of Abderhalden's Reaction for the Serum Diagnosis of Pregnancy (Über die Verwendbarkeit der Abderhaldensche Reaktion bei der Serodiagnose der Schwangerschaft) *Mittheil. med. Wchsch.* 913, 10, 1-50.
By Zentrabl. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

The author investigated Abderhalden's serum reaction in one hundred cases of pregnancy. He employed the polarimetric and the dialytic methods and was able to confirm Abderhalden's results. The reaction occurs early in pregnancy and persists fourteen days after labor and after abortion. Of the results obtained in eighty-five only one was negative and only two were doubtful. Only once was a positive reaction obtained in the absence of pregnancy.

The author further investigated the dialysis method with fetal serum. Contrary to the results of Declo, he obtained positive reaction in several cases. The examination of the urine of pregnant women did not reveal anything definite. The liquor amnii may at times give positive reaction. The spinal fluid in 4 cases of eclampsia gave negative reaction. In few cases of albuminuria, severe vomiting and eclampsia, the reaction was neither very early nor very positive. The question whether the reaction involves only the placenta or also the fetus depends upon whether the fetus produces protective ferments in the mother. The investigations so far are too few to warrant conclusions.

B. RAY.

Hertz, E. A Case of Rupture of the Uterus Following the Administration of Pituitrin (Ein Fall von Uterusruptur nach Pituitrin) *Zentralbl. f. Gynäk.* 1913, 19, 720.
By Zentrabl. d. ges. Gynäk. u. Geburtsh. d. Grenzgeb.

Following the injection of 1 cc. of pituitrin in case of labor with weak pains and three to four fingers cervical dilatation powerful contractions set in which within ten minutes assumed tetanic character. About one hour after the injection there occurred a severe tetanic contraction with sudden collapse and the spontaneous delivery of deeply asphyxiated child. The expulsion of the placenta was followed by hemorrhage due to transverse laceration of the lower uterine segment through which the child and placenta had been delivered. The tear remained subserous. The portio was entirely free in situ and connected with the uterus only posteriorly. Tamponade as performed and pantopon administered. Three weeks later the patient was discharged.

Hertz believes that it is a mistake to administer pituitrin in the first stage of labor. In the case reported, however, there may have been some unusual condition. In forty-seven cases pituitrin

frequently caused nausea, dizziness, vomiting and tinnitus aurium, especially in weak, anemic women. The influence upon the child also was bad. The unfavorable results reported from other sources include uterine atony post-partum asphyxia of the child, collapse, tinnitus aurium, nausea and dizziness, contraction of the cervix, tetanus uteri, and premature separation of the placenta. Pounce.

Jaeger, A. S. Gonorrhea: Relation to Pregnancy and the Puerperal Period. *J. Indiana St. M. Ass.* 9, 3, 4, 111. By Surg. Gynec. & Obs.

The author has classified gonorrheal infection in the pregnant woman as follows:

Acute gonorrhea. (1) Infection present at the time of uterine implantation. (2) Infection occurring during the first four months of pregnancy. (3) Infection occurring between the fourth and the seventh months. (4) Infection occurring between the seventh month and delivery. (5) Infection occurring after delivery during the lying-in period. This is very rare.

Chronic gonorrhea. Active form. (1) Simple chronic gonorrhea in which the disease runs an unchanged course during the entire pregnancy and puerperium. (2) Acute exacerbation of chronic gonorrhea, occurring during any period of the pregnancy or the lying-in period. Latent form. (3) Gonorrhea demonstrable, but subjective and objective symptoms negative. (4) Gonococci demonstrable, but previous history and subjective and objective symptoms suggestive.

From observation the author has learned that the treatment should differ according to the period of pregnancy on account of the danger of interrupting the pregnancy. There is always a chance of abortion during the first four months and of premature birth during the last two months, in the presence of a specific acute or chronic endometritis.

Conservatism is the keynote in treatment. Heat and instrumentation is contra-indicated. If the infection is unusually severe active treatment is sometimes indicated between the fourth and seventh months.

The author uses forceps in these infected cases only as a last extremity and believes that perineal tears should as a rule be cleaned and repaired. If the vulvo-vaginal gland has formed an abscess, it is usually drained and packed before delivery.

His conclusions are as follows. (1) Chronic gonorrhea, or an acute involvement of the endometrium that is present at the time of uterine implantation is much more serious as regards the successful termination of pregnancy than primary acute disease that occurs after gestation. (2) Indulgence and conservatism in the treatment show the smallest percentage of serious complications and the best ultimate results. (3) Post-partum infections are best treated by absolute rest and good drainage; operative procedure should be undertaken only after careful consideration of specific indications.

EDMUND CART.

GENITO-URINARY SURGERY

KIDNEY AND URETER

Coburn, Ott. The Physiology of Kidney Secretion (Zur Physiologie der Nierensekretion). *Zeitschr. f. Heilk., Abt. d. Naturwiss. Med. u. Pharm. C1.* 1911, 1.

By Zentralbl. f. d. ges. Chir. (Grenzgeb.)

From an examination of mammalian kidneys taken fresh from the body (freed from blood and macerated), the author attempted to determine whether combination takes place between sugar and salt and the solid constituent of the kidney and whether there is definite limit beyond which this combination does not take place. As Magnus had already demonstrated for the solution of sodium chloride from umerous periments he came to the conclusion that such combination actually does take place and that sharp boundary for salt can be determined at 6 per cent. If the kidney are put into salt solution of lower concentration no combination takes place. On a considerable amount re combined from solutions of higher concentration. For grape sugar the limit is 0.3 per cent. The combination was easily dissolved by heating.

These processes cannot be explained by osmosis, because then there could be no less explanation for the sudden variation in the limits, but Corbitt believes that the kidney fixes the material from the solution by chemical combination and absorption.

(Grenzgeb.)

Grigorjew S. P. The Radiographic Examination of the Kidneys (Die Röntgenuntersuchung der Nieren). *Verhandl. d. All. Kongr. Chir.* 1911, 73. By Zentralbl. f. d. ges. Chir. (Grenzgeb.)

The author considers important not only diagnosis of the kidneys but also the fluoroscopic examination. The absence of respiratory movement of the kidney speaks for perinephritis. The higher grades of wandering kidney can also be demonstrated in this manner. If during repeated illumination the contour of the kidney of the shadow is not visible perinephritis must be thought of. Furthermore all stones larger than millet seed can be seen in fluoroscopic illumination. If during deep respiration the stone and the lower pole of the kidney do not change their relation to each other the shadow is of intrarenal origin. If change does occur in the relation, the shadow is of extrarenal origin. The reter's shadow is a respiratory mobility of 1 cm. To obtain good result in radiography the time of exposure must not be more than one sixth to one tenth of a second and 10 exposures should be taken, one during inspiration and one during expiration.

The author has collected eighty-two cases of nephrolithiasis. In eleven cases the stones were passed. In forty-four cases the stones were removed by operation. In two cases the stones were bilateral. In all instances the radiographic diagnosis was correct. Only in one case in which the stone was localized in the cervix of the uterus was it found below it in the infundibulum. In six cases the diagnosed stones were not found on operation. In three of these, however, spontaneous expulsion of the stone was observed, and in the other three the stones remained in the kidneys and gradually increased in size. According to the author the determination of the size of the stones by means of false projection is impossible.

(Hirsch.)

Kawasoy, M. Anatomical Changes in the Kidney After Ligation of the Ureter (Ueber weitere Beiträge zur anatomischen Veränderung der Nieren nach dem künstlichen Ureterrenschneid). *Zeitschr. f. Anat. u. Physiol.* 1911, 7.

By Zentralbl. f. d. ges. Chir. (Grenzgeb.)

The author reports the anatomical changes in a case of hydronephrosis, in which the post-mortem examination of the animal was made 300 days after the ligation of the ureter. Corbett found changes caused by nephrotic processes on the non-ligated side. Kawasoy however did not find such changes and emphatically denies that any change is caused on the non-operated side by the ligation of the ureter. The alterations found by Corbett he believes must have been caused by septic infection resulting from the operation. On the ligated side there was marked trophy of the parenchyma, while the same amount of fluid was present in the pelvis of the kidney after 300 days as after 70 days. The glomeruli were the most resistant part of the kidney parenchyma.

A. Hirschberg.

Hadden D. Bacteriology of the Urin in Relation to Movable Kidney. *Calif. St. J. Med.* 1911, 9:3-136. By Surg. Gynec. & Obst.

Hadden records eight cases to show that displaced kidney causes stasis of the urine and through the alteration of the chemical contents, furnishes a medium in which certain germs, entering from the neighboring organs or from the blood stream, can grow.

He believes that left-sided ptosis is more frequent than is generally supposed, and that in many cases it is not associated with right-sided ptosis. The reason he gives for the fact that many cases of displaced kidneys are without symptoms is that the individual is in good physical condition and as long

as such is the case the peristaltic action of the kidney pelvis, and ureter is maintained and stasis of urine is prevented.

If the treatment, results cannot be expected from vaccines until the ptosis is corrected and drainage is effected. He claims that we have swung from kidney fixation because we have tried to cure movable kidneys, associated with enteroptosis, without supporting the other organs. It inclines to the method of Looney with the fixation of the capsule as it corrects any colon sag that may be present.

His conclusions are as follows: (1) Normal urine is sterile (2) the greater number of chronic infections of the urinary tract are associated with a bladder or kidney ptosis or both (3) unilateral nephritis is a condition of infection having a kidney sag as its origin (4) many movable kidneys are without pathological significance because the muscle tone is unimpaired (5) when the muscle tone becomes impaired we have urine stasis and infection, (6) every movable kidney is a latent source of trouble (7) in the bacteriological examination of the urine we have means of diagnosing the pathological floating kidney (8) the degree of symptomatology depends on the kind of infection and the sensibility of the patient and (8) if we are able to diagnose positively pathological floating kidney we will consider more seriously the operative treatment and the type of operation, for at best the kidney support is only temporary and it is often impossible to apply it properly. LOON GROOM

Vincent W G A Unusual Case of Renal Hematuria; Unilateral Chronic Hemorrhagic Nephritis; Decapsulation Apparent Cure; Recurrence; Bilateral Intervention; Decapsulation of Both Kidneys Six Years Later. *Med Res* 9, 3, 1920. By Berg G. and Ober

The authors report a case in which the right kidney was found to be the source of severe and long continued hemorrhages. Decapsulation on that side was followed by rapid disappearance of the symptoms and an apparent cure for five years. During the sixth year the symptoms recurred and catheterization of the ureters showed that the hemorrhage was bilateral. Decapsulation of both sides was then performed. Patient's condition improved, but symptoms were not fully relieved.

Examination of sections from the kidneys showed chronic hemorrhagic nephritis. The right kidney gave evidence of "replacement fibrosis" following the first decapsulation. H. L. SARGENT

Pena, M. On the Significance of Renal Hematuria Immediately Following a Nephrectomy for Tuberculosis (De la valeur de l'hématurie rénale immédiatement consécutive à une néphrectomie pour tuberculose). *J. Chir.* 19, 3, 1921.

Post-operative hematuria from the remaining kidney after nephrectomy for tuberculosis is but

little recognized, though it occurs often. It is a hemorrhage of pure blood, and begins usually from one to five days after the operation. It may not appear until the fifteenth day. In two thirds of the cases the hemorrhage is severe. It is intermittent and lasts usually a short time, usually for one or two days. In some cases, however, it may continue for eight, ten or thirty days. It ceases gradually. A short hematuria following nephrectomy for tuberculosis may be characterized as an idiopathic hematuria, not very intense, intermittent, and of short duration.

The pathogenesis is doubtful. The hematuria may be due to tuberculosis of the remaining kidney to benign colon bacillus infection of the remaining kidney or to the compensatory hyperemia of the remaining kidney. The prognosis is bad in the first case and good in the others, but it is difficult to state the beginning to which class it belongs. J. TAYLOR

Nijm A. J. The Question of Ascending Infection of the Kidney and the Prevention of the Same by Implantation of the Ureters into the Bowel (Zur Frage der aufsteigenden Niereninfektion und der Verhinderung derselben bei der Uretertransplantation in den Darm). *Darmheiler, St. Petersb.* 1919.

By Zentgraf, f. d. gen. Chir. u. I. Onkolog. From a large amount of data in the literature and from his own experience, the author comes to the conclusion that transplanting the ureters into the bowel is better than transplanting them into the skin. While the danger of kidney infection is less. The cases in which ureteral implantation may be used may be divided into four groups as follows: (1) Diseases in which in addition to the ureteral implantation, the bladder must be extirpated, as in ectrophy of the bladder, carcinoma of the bladder, carcinoma of neighboring organs in which the bladder also is involved, benign but frequently recurring tumors, and tuberculosis of the bladder with marked anatomical changes, (2) diseases in which ureteral implantation is performed without extirpation of the bladder as in tuberculosis which is not accompanied by serious changes of the bladder but which does not respond to the usual methods of treatment and in high epispadias with insufficiency of the sphincter of the bladder, (3) diseases in which the ureteral implantation is indicated as a palliative operation, as in inoperable carcinomas, bladder tuberculosis with tuberculous kidneys, and generalized tuberculosis.

The infection of the kidney following transplantation of the ureters is primarily urogenous. It is favored immediately after the operation by the stasis of the urine in the ureters due in part to the reflex paralysis of the ureters and in part to constriction of the anastomotic ring and the bowel musculature, and to inflammatory infiltrations. Later on, after the ureters have recovered, it may be due to the lymphatic stream. The principal organism is the bacillus coli communis.

The author discusses eleven personal cases. In all, the operation was performed according to the method of Mikrozorn of the Oppel clinic. Seven times it was for ectropion of the bladder (three times for high epispadias with aplasia of the bladder sphincter and once for high grade tuberculosis). Ten of the operations were radical and one palliative. The latter cured the patient of his continual desire to urinate and of his pain. Seven patients were discharged cured and four died (one of peritonitis, one of shock, one of generalized tuberculosis, and one, ten and one half years after the operation, as a result of sepsis following a plastic operation on the bowel). Excluding the last two cases, there remains an operative mortality of 18 per cent both of the deaths occurring in children (aged one year and nine months, and one year and two months respectively). The author agrees with Mikrozorn that the operation should not be performed in children. During the post-operative period lactobacilli was given and was well tolerated by the patients. In three cases in which there was an inflammatory condition of the bowel the result obtained was good, and in others the discharge of mucus ceased. In one case no effect was obtained. From thirteen examinations following the operation it was found that there was a retention of the chlorides of the urine attributable to a pyelitis. A decrease in the excretion of nitrogen also occurred. It is probably that the polyuria from which most of the patients were suffering. Uramic symptoms were not observed. In four cases of post-operative pyelitis the vaccine therapy of Wright was employed, a togenous colon vaccine made from rice organisms being injected in small doses which were gradually increased. The maximum dose was 50 million bacteria. In two of the cases, cure resulted following six injections. One case improved, and in another the injections had to be discontinued on account of the continuous high temperature. In one case the vaccine was used prophylactically before the operation.

After the author had employed the vaccine on eighteen dogs experimentally, he came to the conclusion that it cannot prevent the ascending infection of the pelvis and kidney. The disease was more severe and set in earlier in those cases in which a stenosis of the anastomotic ring and stasis of urine occurred. In cases in which the flow of the urine was free, the kidneys were found to be healthy even a long time after the operation. The monograph is accompanied by an extensive bibliography (three plates, and numerous drawings). O. von SCHILLER.

Comden A. P. Unilateral Septic Infection of the Kidneys. *N. F. M. J.* 9, 5, April, 1910.

By Surg. Gynec. & Obst.

Unilateral septic infection of the kidney is caused by the successful invasion into the kidney of microorganisms and their products which usually produce numerous suppurative abscesses and often violent general symptoms.

The writer reports two interesting cases, one a severe type demanding immediate operation and the other a milder form.

The origin of these infections is usually hematogenous. Predisposing causes are (1) Pregnancy (2) passive congestion of the kidney; (3) infections such as erysipelas, endocarditis, scarlet fever etc. The exciting cause is a pathogenic micro-organism, usually the colon bacillus.

The symptoms appear suddenly and consist of severe continuous pain over the affected organ, marked tenderness, hyperesthesia of the skin over the kidney and rigidity of the lumbar muscles. There is usually vomiting, fever, rapid pulse, prostration and high leucocytosis. The urinary findings and pathological findings may be absent; usually however there is pus, albumin, and microscopic blood.

The indications for operation are: (1) Intensity and progressiveness of symptoms (2) high temperature (3) leucocyte count above eighty, etc. Such cases should be operated upon at once. A few will undergo resolution and others will recover if properly drained. A radical operation, however, is usually indicated.

The writer mentions Brewer and Cobb as having done extensive work in the study of septic conditions of the kidney.

H. A. MOORE.

Papin. The Localization of Renal Tuberculosis by Radiography (Localisation de la tuberculose rénale par la radiographie). *Arch. urol. clin. de Vichy* 9, 3, 4, 97.

By Journal de Chirurgie.

Radiography sometimes shows at the site of a tubercular kidney spots corresponding either to hollow spaces or calcareous areas. These spots may be of prime importance in deciding the question as to whether nephrectomy should be performed in the case of a subject who shows urinary tuberculosis but in whom the bladder can not be explored on account of its sensitiveness. In such a case we can demonstrate that one of the kidneys is sound if Ambard's coefficient, the relation of the urea in the blood to that in the urine is normal but we still have to determine which is the normal kidney. If we have no other localized symptoms, radiography may settle the question. The author cites two cases in which, when the kidneys showed a spot in the radiographic picture, bladder exploration was impossible, and the Ambard coefficient was normal or subnormal, nephrectomy was performed successfully. MAURICE CHIVASSU.

Thomson J. The Infection of the Urinary Tract in Children by the Colon Bacillus. *Lancet*, Lond. 9, 3, Dec. 1910, 457.

By Surg., Gynec. & Obst.

On the basis of seventy-one personally observed cases of this kind, the author concludes that different types of colon infections are predisposing factors. He differentiates between the normal colon bacillus and the virulent organism. Any cause that retards

the downward passage of the urine is influential in inviting colon bacillus infection. This infection is twice as common in children under two years as in those that are older. Seventy-nine per cent of the cases that he observed occurred in girls. During the first six months of life, however, a much greater number of boys than girls were affected. An analysis of cases of two hundred and twenty-four babies two years of age, reported by thirteen authors, shows that more boys were affected during the first six months than at any later age. The author claims, further, that the attacks in male patients are apt to be more severe than those in females and there is usually in the former a much larger proportion of cases of fatal pyelonephritis. He does not attempt to explain the reason for this.

The differential diagnosis of acute col-pyelitis depends, first, on the presence of pus and colon bacilli in the urine along with the typical general symptoms which the author describes somewhat in detail, and second, the absence of any sign of organic disease outside of the urinary tract that might account for the condition.

As treatment Thomson recommends, first, measures to cause the urine to become alkaline second, the administration of antiseptics and third the use of serums and vaccines.

Glynn, E., and Hewatson, J. T. Adrenal Hypernephroma in the Adult Female Associated with Male Secondary Characters. *J. Pathol. & Bacteriol.* 19 3, xviii, 2.

By Surg. Gynec. & Obst.

The case is reported of a woman forty-four years of age who for sixteen years has been showing gradually increasing number of sex abnormalities. Her voice was coarse, her face and trunk hairy and her breasts were of the male type. At the operation which was followed by her death, twelve pound tumor was removed from the region of the left kidney. Microscopical examination showed it to be of adrenal origin.

The authors compare the structure of this tumor with that of other similar tumors which they have had the opportunity to study. They classify all five as adrenal hypernephromata. In contrast distinction to renal hypernephromata, and maintain that tumors of this type are not malignant.

Seven cases of adrenal hypernephroma in young adult females, associated with changes in sex character are tabulated. Our knowledge of the relationship of such tumors to abnormal sex characters is summarized by the authors as follows:

In children, hirsuties and other abnormalities are almost invariably present.

1. In adult females before the menopause, sexual abnormalities are frequently present.

2. In females after the menopause definite sexual aberrations are not recorded.

3. In adult males such changes are not noted.

4. There is no evidence that hypernephroma in the kidney which has totally different histological

structure from that in the adrenal, is ever associated with abnormal sex character. G. G. Extra.

Jacobs, L. Pyelography. *T. Am. Radiol. Soc.*, Boston, 9 3, Oct. By Surg. Gynec. & Obst.

There were two important epochs in the development of the roentgen diagnosis of diseases of the urinary system. The first began in 1898, when Leonard published his papers establishing the rules for the determination of the sufficiency of the roentgenogram in order to make a positive or negative diagnosis regarding urinary calculus; the second in 1905, when pyelography and cystography were introduced by Voelcker and von Lichtenberg.

Pyelography enables us to diagnose hydro-nephrosis, renal tuberculosis or tumor, the position of the kidney, and congenital anomalies, such as fused kidney, kinks, constriction or dilatation of the ureter and diverticula.

Cystography shows the size and shape of the bladder anomalies and pathological conditions, such as diverticula and trabeculations, and changes caused by hypertrophy of the prostate.

The dangers of pyelography are collapse due to over-distention of the renal pelvis irritation of the kidney followed by high fever, and deposits of the silver salt in the kidney substance. Caution is advised where only one kidney is present or when the other kidney does not functionate properly. The dangers of pyelography were further illustrated in a case in which diverticulum in the ureter could be demonstrated only by argyrol, and in which several months later the shadow of the diverticulum could be seen very distinctly. The patient refused operation, so that the question as to whether the silver salt had remained in the diverticulum all this time could not be solved.

Lantern slides were shown illustrating the various conditions named above.

In the discussion STOVER of Denver suggested that the shadow remaining in the region of the diverticulum may have been due to a calculus that was not shown before because of its chemical composition but which became visible as the result of absorbing some of the argyrol.

Leguen and Papin. The Technique and Accidents of Pyelography (Technique et accidents de la pyelographie). *Arch. anat. clin. de Nechro.* 9 3, 1.

By Journal de Chirurgie.

By pyelography the authors mean the injecting of substance that is opaque to X-rays into the ureters and pelvis of the kidneys before taking a picture. Leguen and Papin have worked on this for two years and report the method used, the results obtained, and the accidents met with.

They found that the best method is to inject ten per cent collargol through ureteral catheter passed up to the pelvis of the kidney. Also that it is better to introduce the collargol by gravity from a curette 80 cm. above the patient than to force it in with a syringe. When the pelvis is full

there is pain in the back and no more fluid should be used. The fluid must remain in until after the radiograph is taken. It is not necessary to wash it out.

By pyelography it is possible to demonstrate the exact location of the pelvis of the kidney its relations to the ureter and the presence of curved ureters, double ureters, hydronephrosis tumors, stones (the latter especially if oxygen is used instead of collargol) tumors of tuberculous cavities, etc. In short, it is invaluable in the diagnosis of renal troubles and of lesions of the pelvis or ureters.

Pyelography may be accompanied by pain which lasts for several hours or even days afterwards and which may resemble kidney colic. Small doses of morphine and hot compresses in the lumbar region, however give relief. There is also sometimes slight fever (38° to 39° C.) lasting for two or three days. Sometimes there is infiltration of the renal parenchyma, which may be seen by radiography and upon operating. This in one case caused death (Rösle). Leguen and Papin believe it to be due to the use of too great pressure in administering the collargol, for they have had no such trouble since they stopped using a syringe.

MEIER (REUTHER)

Van Mier, G. Experiences in Renal Surgery (Erfahrungen aus dem Gebiet der Nierenchirurgie. Budapest: Franziska, 93)

By Zentralbl. f. d. ges. Chir. Grenzgeb.

In this monograph the author describes three hundred and forty nine kidney operations that he performed during a period of eight years. The diagnostic and operative methods are minutely described, and the work is full of practical hints. The operative results are noteworthy. There were twenty four cases of tumor with 6.6 per cent mortality; seventy-five cases of kidney and ureteral calculi, with mortality of 6.6 per cent; twenty cases of hydronephrosis with mortality of 1 per cent; twenty-five cases of pyonephrosis with a mortality of 20 per cent; sixteen cases of pyelonephrosis, with mortality of 30 per cent; sixteen cases of pyelonephritis and kidney bacera, with a mortality of 0 per cent; and 4 cases of tuberculosis, with a mortality of 4 per cent. The end-results of the last, however showed mortality of 17.4 per cent. There were three cases of noma, one of syphilis of the kidney one of cystic degeneration. Of floating kidney there were fifteen cases, with no mortality. Nine exploratory operations had no mortality. Perinephritis fibrosa, five cases, and perinephritic bacera, three cases, had no mortality. The average mortality was 7 per cent.

VON LÖNNBERG

Gibson, J. H. The Technique of Nephro-, Pyelo- and Ureterolithotomy. Ann. Surg. Phila., 93, 1904, 31.

By Surg. Gynec. & Obst.

Nephrotomy is the operation of choice only for large, branching, phosphatic stones, for small stones

lodged high up in the calices, and for cases in which the kidney is badly infected. In other cases pyelotomy is preferred. For the removal of multiple, widely distributed stones, the author prefers making several incisions directly over the calculi instead of splitting the entire kidney.

Pyelotomy is favored for the removal of most renal calculi. The fat overlying the pelvis and the pelvis itself should be incised longitudinally in different planes, and at the conclusion of the operation they should be sutured separately. There is little danger of urinary leakage when this plan is followed.

If stones in the lower part of the ureter are not easily located by the extraperitoneal route, the author at once resorts to the transperitoneal method of approach, using this, however, only for the purpose of locating the stones and pushing them into a position where they will be accessible through the extraperitoneal wound. This method promotes speed in operation, gives an opportunity to thoroughly explore both ureters, and has been found to be safe.

S. W. MOOREHEAD

Bronberg, R. A Contribution to the Functional Diagnosis of the Kidney (Beitrag zur funktionellen Nierendiagnostik). Beitr. z. klin. Chir. 93, 1909, 4.

By Zentralbl. f. d. ges. Chir. u. Grenzgeb.

Lowenhardt was the first to call attention to the value of determining the electrical conductivity for the functional diagnosis of the kidney. The method has rendered very good results as has been stated several times by Kummell. Bronberg employs a slightly modified apparatus for measuring the electrical conductivity and emphasizes particularly the value of comparing the electrical conductivity of the blood serum and of the urine of both kidneys. According to the author this hemorenal index is the only method by which the functional activity of the kidneys can be determined absolutely.

OSFLECKER.

Scott, G. D. Hydronephrosis Produced by Experimental Ureteral Obstruction. J. Indiana St. M. Ass. 93, 1, 330.

By Surg. Gynec. & Obst.

Scott describes and draws conclusions from original experiments performed upon some fifty dogs. He found that hydronephrosis can be obtained from both complete and partial ureteral obstruction the degree depending upon the duration of the obstruction. Complete obstruction was the more rapid in development.

The pathological changes were due to the back pressure of the retained fluid on the kidney epithelium and to the poor nutrition resulting from pressure on the renal vessels. The tubules were dilated the epithelium was flattened and its cytoplasm became granular the interstitial tissue was increased and in late stages the vessels were sclerotic. In hydronephrosis even of the latest stage, the kidney epithelium was capable of regeneration.

C. D. PICKRELL.

BLADDER, URETHRA, AND PENIS

Leguen Foreign Bodies in the Bladder and Their Treatment (*Fremdkörper in der Blase und ihre Behandlung*) *Abg. wien. med. Ztg.*, 9, 2, 1911, 75. By Zentralbl. f. d. ges. Chir. u. f. Gynäkol.

The author reports the removal of a hairpin from the bladder of a young girl and discusses the symptoms of foreign bodies, especially hairpins, in the bladder pointing out the most appropriate treatment. For diagnosis the X-ray should not be depended upon entirely but each case should, if possible, be cystoscoped. Extraction without the aid of the cystoscope, by means of a hook or similar instrument, usually fails, since the pin generally lies transversely and it is quite difficult to hook it in its closed end.

Even with the aid of the cystoscope the author found it so difficult to remove the pin that he advises suprapubic incision. In the female if the foreign bodies are smaller and not encapsulated, the author makes an incision about 5 cm. in length beneath the symphysis and between the clitoris and urethra. This incision extends to the bladder and the urethra is opened along its whole length without injuring the colliculum vesicae. After the foreign body has been extracted the incision is sutured and it heals without the formation of fistula. Drucks

Bugbee H. G. The Relief of Vesical Obstruction in Selected Cases. *N. Y. J. Med.*, 9, 3, 1911, 40. By Surg. Cyner & Obst.

The author agrees the use of the high frequency current applied in the same manner as proposed by Beer in the destruction of vesical papillomas, to burn away obstruction at the bladder neck, and in cases of enlarged prostates and median bars. He reports fourteen cases of various kinds of obstruction in which the obstructing part was burned away or through, and in which he reduced the residual urine. The article has numerous illustrations which show the marvelous manner in which the obstructing portion disappears. B. S. BARRINGER

Leguen The Electro-Coagulation of Tumors of the Bladder (*De l'électro-coagulation des tumeurs de la vessie*) *Arch. anat. clin. de Nécker*, 9, 2, 1911. By *Journal de Chirurgie*

Excision is the treatment of choice for tumors of the bladder of any considerable size, but for extremely small tumors or for small recurrent nodules the endovesical treatment is distinctly preferable.

Leguen has studied the action of high frequency currents on tumors of the bladder using both Beer's method, which has coagulating and diathermal effect, and the method of Heltz, Boyer and Cottenot, which has a disintegrating action. The two methods seemed to him to be about the same in their action as well as in their results. He prefers Beer's method, however, as it does not require a special cystoscope. He has had an electrode made the size of urethral sound which can be

passed through any cystoscope. It ends in a copper button through which the diathermal current is passed by means of a d'Arsenval bipolar apparatus.

The action of the diathermal current is described in detail. The author studied it histologically as a tumor treated by electro-coagulation immediately before it was excised.

He gives his patients treatment of five minutes duration every two weeks, with a current varying in intensity from 50 to 350 milliamperes. It is useless to give the treatments closer together for the elimination of the coagulated particles takes a considerable length of time. He used the method five times for palliative treatment and noted that it caused a diminution or cessation of hemorrhages. Five times he used it for curative purposes: two tumors were cured after five treatments, one after six treatments, one almost cured after six treatments, and one was very much decreased in size after the sixth treatment.

The application of high frequency currents in the treatment of tumors of the bladder constitutes great advance in endoscopic technique.

MAURICE CHAVAN

François, J. Transformation of Cystic Cystitis into Glandular Cystitis (*Sur la transformation de la cystite kystique en cystite glandulaire*) *J. d'anal.*, 9, 3, 1911, 307.

By *Journal de Chirurgie*

François made an histological study on surgical specimen of the transition from cystic cystitis to glandular cystitis.

The patient, a woman of 33, entered the hospital for a very intense cystitis with frequent and abundant hemataturia. The urine was purulent and the capacity of the bladder was reduced to 60 cc. The kidneys were normal.

The cystoscope showed the fundus red and tomentous in places. Clinically there was an intense, non bacillary cystitis without involvement of the kidneys.

Operation showed the mucous membrane of the whole trigonum surrounding the opening of the two ureters, red, ulcerated, irregular and tomentous. The right urinary meatus was swollen, red, and somewhat patent. All of the diseased mucous membrane was destroyed by thermocautery. A month later the patient had recovered and the capacity of her bladder had reached 300 ccs.

Histological examination. At the edge of the tomentous area, full and sphenoidal von Brunn epithelial nests are found in the submucosa layer as the center of the tumor was approached these nests showed hollow central cavity and the cells bordering the cavity were of the secretory type. In the center of the tumor the mucous membrane had almost entirely disappeared there were some cystic formations in the submucosa, but the most characteristic appearance was given by mucous glands bordered by single row of cylindrical cells, resembling the mucous glands of the intestine.

These formations are characteristic of glandular cystitis. The transformation of the polyhedral cells of the vesical epithelium into secretory cells which ultimately take on the characteristics of mucous cells could be observed.

Along with this process mucous cells appeared and multiplied in the covering of the epithelial crypts that is, a certain area of normal stratified vesical epithelium was transformed into a layer of cylindrical cells which were nothing more than mucous cells. The inflammatory lesions of the submucosa were greatest in the zone of glandular cystitis and less intense in the zone of cystic cystitis.

Calculi, neoplasms, chronic cystitis—in short any chronic irritation as Chas. has shown experimentally—may give rise in the lower part of the vesical epithelium to von Brunn epithelial nests and the cysts which result from them.

The glandular formations may have either one of two origins they may be due to an embryonic inclusion of germinal cells from the intestinal tract as is the case in pure glandular cystitis without cystic cystitis at the periphery or to the transition of vesical epithelium into mucous cells passing through the stage of cystic cystitis. J. F. STON.

GENITAL ORGANS

Eckels, L. E. Epididymotomy the Radical Operation Treatment of Epididymitis. *J Am Med Ass* 9, 3, 141, 470. By Surg. Gynec. & Obst.

Eckels is firmly convinced of the desirability of the operative treatment in every case of cut epididymitis. His opinion is based on the observation of one hundred operated cases, of which he operated upon twenty-five. He lays emphasis on the marked absence of relapse in the cases so treated and believes, while admitting a lack of direct proof that sterility is largely obviated by surgical treatment. He gives a clear description of the operation, which is simple and harmless procedure.

His conclusions in regard to this operation are as follows: (1) The relief from pain is instantaneous. (2) The internal administration of sedatives and opiates and leucosamine external applications are made unnecessary. (3) The abatement of fever takes place in from twenty-four to thirty-eight hours. (4) Pus and abscess formation is prevented. (5) Swelling, tenderness, and other symptoms rapidly disappear. (6) There is no tendency to relapse. (7) Only a minimum of time is lost from usual activities. (8) The percentage of cases of sterility following the disease is probably reduced.

J. DELLINGER BARNETT

McGee Remits Effects of Lesions of the Prostate and Deep Urethra. *J Am Med Ass* 9, 3, 141, 477. By Surg. Gynec. & Obst.

Lesions of the prostate and deep urethra are so frequently responsible for symptoms elsewhere often in remote points of the body that more frequent routine examinations of these organs are

necessary. The symptoms may be sexual urinary or referred. The writer discusses these various disturbances and reports a case of marked cardiac and gastric disorders that was unsuccessfully treated in many ways until the verumontanum was examined. The latter was found to be the real source of the reflex processes and was cured. Referred pains may occur in the legs or lower abdomen, and may simulate many conditions, all the more because there is no regularity in their distribution.

Chronic arthritis, impairment of kidney function, myocardial changes even angina pectoris, are also associated with prostatic lesions and this possible relationship must not be lost sight of.

FAXTON L. GARDNER.

Kimmel H. The Diagnosis and Treatment of Early Malignant Disease of the Prostate. *The Internat Cong Med., Lond., 9, 3, Aug.*

By Surg. Gynec. & Obst.

Kimmel discusses the present status of the question concerning the diagnosis and treatment of malignancy of the prostate gland in its initial stages.

Three points are enumerated as being essential for the definition of the term initial stage: (1) the malignant tumor must be confined to the gland proper and there must be no involvement of the vesical mucosa or of the periprostatic tissue; (2) neither the anamnesis nor the subjective complaints nor the symptoms elicited by examination must furnish any material pointing to a dissemination into any other part of the anatomy from the original focus; and (3) it must be possible to remove the malignantly degenerated gland by any of the operative methods in use for the removal of a simply hypertrophied prostate.

Reviewing all of the available statistics, the author arrives at the conclusion that malignancy in the enlarged prostate is of a much higher frequency than has been believed heretofore.

Judging from his own experience and from the reports of other authors, Kimmel feels justified in formulating the thesis that a cancer may develop in an originally benign hypertrophy and that it is therefore imperative that in every case of hypertrophy of the prostate accompanied by pronounced symptoms, the possibility of malignancy be thought of.

The diagnosis that is the earliest possible recognition of the malignancy of a prostatic tumor is the most important and at the same time the most difficult problem encountered in the whole question. While it has to be admitted that the diagnosis of a cancer in the initial stage cannot be made with absolute certainty still it is a matter of experience that in a vast majority of the cases of this kind the diagnosis can be established with a probability that is very close to certainty.

As leading symptoms in the recognition of prostatic cancer in its initial stage are quoted the sudden appearance of marked dysuria, irradiating pains

that have their beginning in the prostatic region, a characteristic hardness of the gland either extending over the entire tumor or restricted to certain regions of the gland and extreme sensitiveness to touch of the parts involved.

As the method for operation the author recommends the suprapubic route for patients who show symptoms of insufficiency of the renal function the two-step operation is preferred, as it gives the kidneys a chance to rest after sufficient drainage has once been established.

The author sums up his conclusions as follows: Cancer of the prostate is a relatively frequent disease apparently simply hypertrophied glands show malignant degeneration from twelve to twenty-three per cent of all the cases the figures varying according to the different material of the different authors.

Cancer of the prostate shows decided inclination to form metastases in the bones however great metastases occur under observation in which during the early stage the cancer remains confined entirely to the prostate gland.

Cancer of the prostate in the early stage may be diagnosed in the majority of cases with near certainty and in a smaller number of cases with great probability only few cases all the diagnosis remains very uncertain.

The advantages of the operation from that lasting results of eight years duration thus on reach, in a great number of cases the condition of the patient remained satisfactory after the operation for varying time until the relapse became manifest.

Considering that prostate cancer in many cases remains during the initial stage an entirely local process and that in the majority of the cases the malignancy may be recognized, it is imperative to arrive at such diagnosis early as possible and to attempt radical cure by an early operation.

Considering that not only may cancer develop in so far normal gland but that apparently in the majority of cases it becomes established in an already hypertrophied gland an early removal of the prostate is to be recommended in every case of hypertrophy if the slightest suspicion of malignancy is aroused.

The reported long operative results extending over periods from three to nine years seem to prove that an early operation is capable of furnishing a radical cure for prostatic cancer.

In the early stage of prostatic cancer the ordinary methods employed in the removal of hypertrophied gland are sufficient, more extensive operations are not required in the initial stage.

In case of insufficient renal function the two-step operation should be given the preference as it is the least dangerous procedure. In order to prevent the occurrence of relapses, radiotherapy should be employed following the eradication of the gland relapses should be treated in the same manner.

G. Kottmeier.

Doner J. H. Prostatectomy. *Surg. Gynec. & Obst.* 93, 1912, 37. By Song, Gynec. & Obst.

The encasability of hypertrophied prostates is largely dependent upon the pathological change that is present in the particular case. The encapsulated and therefore encasable adenomatous masses, markedly enlarged in the vertical axis and for this reason more accessible from above are removed with surprising ease by the suprapubic route. The dense, fibrous type, which comprises about 5 per cent of benign hypertrophies, lacks not only this comparative encasability but, but is of greater importance lacks also an encapsulation that permits of its being belted out.

The cystoscope is the most valuable means of determining the most appropriate operative procedure. By its use we learn the relation of the enlarged gland to the internal vesical orifice and the degree of intravesical projection also the condition of the bladder mucosa, the presence or absence of diverticulation, the location of calculi, their size and shape and whether free or encysted. All of these factors influence the degree the choice of operative procedure.

Benign hypertrophies of the prostate are indistinguishable from carcinoma in its early stages. In all cases of acute or chronic retention that is impossible to catheterize, in severe cystitis, and in all cases in which for any reason it is impossible to form fair estimate of renal function, we must limit ourselves to the drainage operation, reserving prostatectomy for future consideration.

Our advocacy of the suprapubic route is tempered with the principle that successful prostatic surgery depends upon one's ability to recognize the types best suited for and one's skill to perform, either operation. Where the prostate is doubtfully malignant but where there is benign scirrhous enlargement — in all of which conditions the gland is non-encasable because it is not encapsulated and is difficult or impossible to reach from above the normal capsule and sheath are inseparably adherent and bound down to the surrounding levator ani muscles and pelvic fascia, and the bladder is small in capacity and has rigid walls — prostatectomy can be performed successfully only by the perineal route.

Hæmorrhage following operation is usually insignificant in amount and easily controlled. In the event of excessive bleeding the prostate cavity must be packed with gauze.

The drainage tube should be of large calibre and so placed that the siphonage of the bag-bottle is proven perfect before the patient leaves the table. The tube must have lateral and terminal openings to lessen the danger of its obstruction by folds of mucous membrane. Exposing the bladder point of much practical importance is incision of the preperitoneal fat rather than the tearing through of this structure.

Uræmia and suppression of urines occur at times in spite of careful selection of cases and judicious

judgment both before and after operation. Hic coughing and nausea are the danger signals.

Cabot, H. S. *Suprapubic Prostatectomy*. Surg. G. nec. & Obst. 9 3, xvii, 3. By Surg. Cabot & Ober.

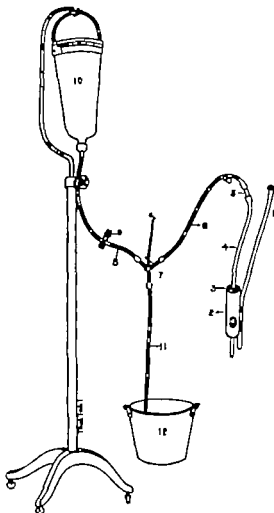
This paper is a discussion of the anatomical basis for the operation of prostatectomy.

Consideration is confined to the class of cases of enlargement that is ordinarily spoken of as hypertrophy. This process is not to be regarded as true hypertrophy but as due to the formation of adenomatous nodules involving only certain lobes of the gland. Stress is laid on the fact that these adenomas do not involve the posterior lobe. The adenomatous masses which arise from the lateral and median lobes are covered on their urethral surface only by thinned true capsule and atrophied mucous membrane, from within which they cannot be enucleated even by dissection. The author holds that the operation of prostatectomy performed by any method, only the adenomatous masses in the lateral and median lobes are removed and that the posterior lobe is not enucleated. He then compares the method of intra-urethral enucleation whether done from above through a suprapubic incision or from below by opening the urethra in the membranous portion, with the operation of Young which attacks the adenomas through incisions in the posterior surface of the prostate. By the intra-urethral method the adenomatous masses are removed easily and completely without damage to the posterior lobe. By the operation of Young the removal of the lobes from under the thinned capsule and mucous membrane is exceedingly difficult and often incomplete. Furthermore, in Young's operation the structures of the posterior lobe are necessarily damaged extensively.

The author therefore is of the opinion that Young's operation cannot properly be regarded as a conservative method. The suprapubic method of approach is open to fewer objections on the ground of unpleasant sequelae such as fistula and lack of urinary control than is the perineal approach, and accordingly is to be preferred.

Day, C. H. *A Modified Drainage for Suprapubic Prostatectomy*. A. J. M. J. 9 3, xvii, 4, 5. By Surg. Cabot & Ober.

The author has suggested a modification of Dawbarn's system syphonage for suprapubic drainage. In using the Dawbarn system, the thor passes the bladder catheter through the center of the Marion



Catheter for irrigating purposes. Marion tube. 3. Metal stopper. 4. Drainage tubing. 5. Glass connecting tubing. 6. Soft rubber drainage tubing. 7. Glass. 8. Irrigating tubing. 9. Regulating cut-off. 10. A large irrigator. 11. Irrigating tubing. 12. Receptacle for waste (Day).

suprapubic tube before he begins the syphonage. If he wishes bladder irrigation in addition, he simply irrigates through the small tube attached to the side of the Marion tube.

B. S. BARRINGER.

SURGERY OF THE EYE AND EAR

EYE

Robertson, E. N. The Present Approved Methods of Treatment of Obstructions to the Lacrimo-Nasal Duct. *J. Kansas M. Soc.*, 1913, 12, 227.
By Surg., Gynec. & Obst.

Robertson discusses the treatment of obstruction of the nasal duct and sums it up as follows:

The majority of all cases of lacrimo-nasal obstruction, in the beginning, can be relieved by very simple measures.

Syringing with mild astringent antiseptic solutions should always be tried faithfully even in those cases where a mucopurulent discharge from the sac is present.

It is better as a rule not to open an acute dacryocystitis through the skin. More satisfactory final results are obtained by letting the pus out through the canaliculus, or by the incision of Agnew followed by the use of the probe.

Rapid dilatation by the method of Ziegler is sufficient to effect cure in many cases formerly made tedious by probing.

Good results can be accomplished by probing in selected cases if the patient will stand for it.

When quick relief to chronic dacryocystitis is desired, extirpate the lacrimal sac.

C. G. DALLING.

Combs, G. Infarction of the Posterior Ciliary Arteries. *T. Internat. Cong. Med.*, Lond., 1913, Aug.
By Surg. Gynec. & Obst.

Combs describes the pathological details of two cases in which wedge-shaped portion of the inner layers of the sclera at the posterior pole was necrotic. A somewhat larger area of the choroid, and a still larger area of the retina, were similarly affected. There was no fusion of the choroid and retina, but moderate amount of infiltration was present in the surrounding tissues. In the divided eye the area appeared as an atrophic patch 8 to 10 mm. in diameter. It had not been seen with the ophthalmoscope, the cases showing clinically the symptoms of chronic iridocyclitis. The author points out that the pathological features of these cases differed from those of an ordinary patch of choroidoretinitis in the great preponderance of the necrosis over the inflammatory reaction, and in the absence of fusion of the two tunics. An inflammation severe enough to give rise to such degree of necrosis must have been accompanied by large amount of plastic exudation, whereas, as matter of fact, the signs of inflammation were quite moderate. Therefore the necrosis must have been due only to cutting off of the blood supply. This supposition was accompan-

led by the localization of the patch which corresponded well with the distribution of a main posterior ciliary artery. The condition was indeed an infarction of a posterior ciliary artery, and it had the wedge shape which is usual in infarctions elsewhere.

Infarctions of this kind give rise to toxæmia which cause certain amount of inflammatory reaction in the surrounding tissues, leading to encapsulation and penetration of the dead tissue with organizing material. In the cases reported it is probable that similar substances diffused forwards through the vitreous, and gave rise to the iridocyclitis which was the chief clinical symptom. It might seem surprising that necrosis *en masse* should occur in so vascular a tissue as the choroid, but it should be remembered that the vitality of tissue after the obstruction of its blood supply depends not simply on its vascularity but also on the freedom with which blood from collateral sources can be poured into it. Thus the kidney and spleen are highly vascular organs, but owing to peculiarities in the distribution of their vessels, are subject to infarction. Similarly, in the choroid it had been shown by Leber that the larger ciliary arteries have few branches of communication. The necrosis of the retina, which has its blood supply of its own, is easy to account for. Probably the element of suddenness had something to do with the matter and perhaps the toxæmia produced by the necrotic tissue were not without influence. A similar complete necrosis is found on dividing the posterior ciliary arteries in the rabbit.

The presence of necrosis in bulk proved that the obstruction must have been sudden, for gradual blockage of ciliary vessels produces different and sufficiently well known set of phenomena. The block therefore could not have been due to endarteritis alone but must have been caused either by thrombosis or embolism. Unfortunately, no details are available as to the cardiac condition of the patients.

Hartman, N. B. The Results of the First Hundred Squint Cases Operated Upon by the New Method of Subconjunctival Reading and Advancement, with Lengthening of the Antagonist where Necessary. *T. Internat. Cong. Med. Lond.*, 1913, Aug.

By Surg. Gynec. & Obst.

In this operation the tendon is not cut or exposed in view. The upper and lower edges are cleared by two button-holes cut through the conjunctiva and capsule. The tendon is freshened by rasp. Special forceps of simple design are then passed into the button-holes to secure the tendon. The movement

of the forceps folds the tendon into plaits. The reef is sewed up or advanced as the case indicates, or the antagonist is lengthened by a graduated partial tenotomy.

The steps of the reefing advancement are as follows: (1) The eye is secured with an anchor stitch placed at the limbus in the axis of the tendon to be shortened. (2) The position of the tendon is noted. It is pointed out that there are well-defined surface markings and color differences. (3) The bottom-holes are cut above and below the tendon edge close to the canthus. (4) The tendon is lifted and both surfaces are rasped with the instrument provided. (5) Reefing forceps are applied, adjusted to the extent of shortening required, and tated. (6) The reef is sewed up by the blanket stitch and (7) the reef is advanced by fixing stitches into the limbus.

The author points out that attempts to secure large effect by shortening one tendon caused permanent enophthalmos. This was preventable by lengthening the antagonist, which was done by graduated partial tenotomy—the Jigsaw operation. The tendon was exposed secured in director forceps which checked the bleeding and afforded a marked guide to the incisions. Three cuts were made, one severing two thirds of the middle cut. The tendon thereupon extended lengthwise without loosening its attachments or alignment. The author shows how the cuts can be varied so as to secure vertical deviation also.

Results. Of the first 100 serial cases including the earlier experimental operations the results obtained after an average interval of one month were: Binocular vision 4 straight 36 error less than 3 degrees, 1 error 3 degrees 3 (these make 85 per cent successes), error degrees 0 error from 1 to 30 degrees, 4 relapse six months after operation during severe keratitis, and on reoperation found six months after operation.

The technique of the operations was demonstrated on a dummy devised for the purpose.

Babson, A. E. The Cause and Treatment of Convergent Squint. *J. Indiana St. M. Ass.* 913, v4, 137. By Surg., Gynec. & Obst.

Babson reviews the cause and treatment of convergent squint and states that the proper treatment includes: (1) The recognition of the necessity of giving attention at the beginning of the squint. (2) The correction of the refractive error. (3) Orthoptic training. (4) Operative treatment. He then takes up these points in detail. C. G. DARLINGTON.

Health, F. C. Sympathetic Ophthalmia with Recovery. *J. Indiana St. M. Ass.* 933 v4, 364. By Surg., Gynec. & Obst.

Health reports the case of a man whose eye had been injured by a piece of steel which was removed from the vitreous thirteen days after the injury by means of a magnet. Two weeks later the eye was enucleated. Four days later the good eye became

inflamed. There were pigment spots on Descemet's membrane and vitreous opacities. A few days later the eye was much worse. There was marked oedema and severe pain. Vision was nearly abolished.

The treatment given was sodium salicylate, 360 grains a day inunctions, and finally a hypodermic of pilocarpine grains 1 and nitroglycerine grains .01. During the period of treatment atropine and dionin were used locally. The day following the hypodermic, the patient was salivated and great improvement took place in the eye. The treatment was continued until vision was normal. C. G. DARLINGTON.

Smith, P. Glaucoma Operations. *Tr. Internat. Cong. Med., Lond.*, 93 Aug. By Surg., Gynec. & Obst.

The report shows the extent to which the newer operations for glaucoma have supplanted the classical iridectomy in the practice of British ophthalmic surgeons. In the autumn of 1913 the author addressed an inquiry on this subject to all members of the Ophthalmological Society of the United Kingdom excepting those known to do no operative work. The replies showed that iridectomy variously executed still holds an almost undisputed place in the treatment of acute glaucoma, but that in chronic glaucoma operations expressly designed to establish a subconjunctival fistula or filtering cicatrix, and pre-eminently adercornal trephining, have replaced it to a very large extent. Evidence for and against the various procedures is given.

Ray, D. Observations on Operations for Glaucoma. *Scott. M. J.* 93, 1, 535. By Surg., Gynec. & Obst.

Ray discusses some of the operations for glaucoma and reports good results in the three cases on which he performed Borthen's operation for iridostasis. H. RAY.

These results, while few in number have been so gratifying and so much better than I had obtained previously with the operation of iridectomy that I must say I hold the operation in high esteem. The simplicity of its technique and the absence of all signs of irritation following the same certainly commends it to the inexperienced operator. The only criticism that could be made is the fact it has not been tried long enough to satisfy us as to its permanent value, and the fact that a prolapsed iris is supposed to make a dangerous eye, especially in producing sympathetic ophthalmia. In none of Borthen's cases was there the slightest trouble.

C. G. DARLINGTON.

EAR

Deutch, E. B. Two Cases of Loss of Caloric Vestibular Reaction, with Operative Findings. *Tr. Internat. Cong. Med. Lond.* 93 Aug. By Surg., Gynec. & Obst.

The first case was that of a woman twenty-four years of age who had suffered from chronic middle-

the wound our sole object is to prevent infection from without. In the second event various contingencies require attention (1) Collections of fluid (serum or blood) under pressure within the wound have to be released by a hillform drain or by probing. (2) Collections of pus must be evacuated by probing. (3) Necrosis must be controlled by moist antiseptic dressings and powders. (4) Redundant granulation tissue must be restrained. Granulations are best avoided by preventing infection in the wound. The easiest method of removing them is by curetting. (5) The formation of excessive scar tissue must be prevented by effecting rapid healing. (6) Tympanic anebasms are also voided by rapid healing they are managed by early and repeated tympanic inflation. (7) The formation of permanent fistulae should be prevented by the avoidance of packing and by the encouragement of cicatricial tissue. (8) In general way we have to hurry nature when her reparative process seems too slow. Indolent wounds are aroused by moist stimulating dressings and powders and are aided by general tonic and specific medication when indicated.

With care and good judgment the result of mastoid operation can be made eminently satisfactory. The convalescence is reduced a few days the scar and deformity become negligible pain is obliterated, and the hearing is improved.

Kramplitz: The Dangers of Ligating the Jugular Vein in Otology and the Possibility of Preventing Them (Gefahren der Jugulararterienligatur in der Otologie und die Möglichkeit ihrer Verhütung). Internat. Zeitschrift f. Chirurgie. Rhine-Lorrain. 9: 32.
By Zentralbl. d. ges. Chir. Grenzgeb.

In the year 880 Z. (a) ligated the internal jugular vein for a thrombosis of otogenous origin. Since that time the operation has been recognized procedure for the prevention of otogenous pyemia. Naturally the focus of the sinus must be opened. On account of numerous other collateral branches some operators will not ligate the jugular vein. According to Stenger no operations should be performed either on the sinus or the jugular vein if the presence of cut suppurative processes within the ear. In chronic cases, especially those complicated with cholesteatomata, ligation of the jugular may be performed in addition to cleaning out the diseased area.

Air embolism and the formation of new thromboses at the site of ligation are unpleasant complications. Fatal congestion of the brain due to anomalies, hypoplasia of the other vessels may occur. More frequent are transient disturbances of circulation accompanied by headache, syncope, and edema of the side involved. Injury to the vagus nerve has been observed. Ligation of both jugulars need not be fatal. All of the dangers have not brought the operation into discredit. To prevent

the formation of infected thrombus at the site of ligation the peripheral end of the vein has been sutured to the skin around. To prevent the formation of sudden edema of the brain it must be determined whether the opposite jugular vein is patent. This is done most easily by compressing the vein temporarily. The communication between both jugulars is so extensive that one may be ligated without causing much disturbance in the circulation. With bilateral compression swelling of the supraorbital and retinal veins occurs. The same result is noted if one vein is thrombosed and the other is compressed or plastic. Purmons.

Jacques, P. Pharyngeal Drainage of Orogenous Suppurations of Orogenous Origin (Sur le drainage pharyngien des suppurations craniennes d'origine otique). T. Internat. Cong. Med. Lond. 9: 109.
By Surg. Gynec. & Obst.

Orogenous retro pharyngeal abscess may have three origins (1) Adenophlegmon (10 per cent of cases, according to the author), (2) the rupture of the floor of the tympanic membrane or of a subhyaline cell (44 per cent) and (3) the migration of a local abscess secondary to pachymeningitis (46 per cent).

The author explains the mechanism of this latter variety from 3 cases of his with dissection and anatomical sections. The starting point is prolonged suppuration around the sinuses which finds its exit from the skull through the anterior condyloid foramen or even through the occipital bone perforated at its thinnest point back of the condyle.

Outside the skull the pus tends to infiltrate the cellular interstices of the neck following the occipital artery and its accompanying nerves and veins. Its progress toward the pharynx is cut off by a resistant musculo-aponeurotic barrier extending transversely between the mastoid and the condyle and critically between the jugular process of the occipital and the lateral mass of the atlas. It is composed from without in order of the parotid aponeurosis, the styloid process and its muscles, and the rectus capitis lateralis and its psoeura which covers the vessel sheaths in front. A somewhat exceptional anatomical condition favors the transmissibility of the pus toward the pharynx. This is the presence of an intermediate condyloid foramen which transmits venous channels through the psoeura of the rectus capitis lateralis anastomosing at the sternal orifice of the anterior condyloid foramen with the plexus of the hypoglossal nerve.

The author believes that the discharge of the pus through the pharynx is favorable because it gives permanent sloping drainage, a collection which is imperfectly evacuated by the freest incision through the nape of the neck. He therefore proposes to favor this fortunate complication by cautiously scraping the psoeurotic attachment of the right capitis lateralis to the occipital condyle. L. Goss.

SURGERY OF THE NOSE THROAT AND MOUTH

Verschick, H. Pathology and Diagnosis of Malignant Diseases of the Nose and Nasopharynx. *T. Internat. Cong. Med. Lond.* 93. Aug. B. Surg. Gynec. & Obst.

Owing to the bad prognosis of malignant tumors of the nose and nasopharynx, many rhinologists have given up operating on these cases. These tumors are fatal because they are located near important organs and in a region of complicated structure. The clinical malignancy is often more important than that demonstrated pathologically. In this article tumors of the nose and accessory sinuses are treated in one group and those of the nasopharynx in another.

About 800 cases of malignant tumors of the nose and sinuses are cited from the literature. Theories of cause relate to chronic irritation, mechanical or chemical, or changes in the cells through external influence. The relation of empyema to benign tumors (polyp especially) to malignancy is considered. Histologically the sarcoma is most frequent. They arise usually from the periosteum of the bone, with a predilection for the septum. The anterior half of the middle turbinate (cribriform) is most malignant. They originate from the epithelium, the glands, the paranasal sinuses, and the cells.

Symptoms are often latent, the onset usually coming with obstruction and regional pain. Hemorrhage, eye or brain involvement, often follow. Metastases, except in the regional lymph glands, are rare. Death often results from cerebral complications or hemorrhage before cachexia has become marked.

1. In the nasopharynx malignancy is less common. Carcinoma prevails and endothelioma more frequent than in the nose. Lymphosarcoma originating in the pharyngeal tonsil is not rare. Symptomatically there is a long latent period. At the onset there is cough, deafness and involvement of the cranial nerves, especially the lower branch of the trifacial then occipital pain and paralysis. Distant metastases are formed only occasionally. The case in which hemorrhage may be started makes the removal of the portion dangerous.

EARLE B. FLETCHER.

Kocher and Horand. The Temporary Resection of the Superior Maxilla for Oestification Chondroma of the Nasopharynx. (*Sur un cas de résection temporaire du maxillaire supérieur pour un chondrome du naso-pharynx*). *Lyon chir.* 93, 3. By *Journal de Chirurgie*.

The authors report a case as an example of the usefulness of temporary resection of the superior maxilla as a means of approach to the upper pharynx. Their patient, aged 39 for some months

had had violent headache and signs of progressive bilateral nasal obstruction. On both sides there was symmetrical ophthalmia and paresis of the muscles of the eye, which was most marked in the internal rectus (internal strabismus). Examination showed behind the velum a hard, rough tumor filling the pharynx. It did not bleed and did not yield to pressure.

Jaboulay first ligated the right external carotid and then resected the superior maxillary and lifted it upward and outward. This resection gave very free access to the tumor which was as large as the fist. The tumor was extirpated along with an orbital prolongation the size of a hazel-nut. The maxillary was then replaced and fixed by ligature of the incisors and the suture of the molar.

The tumor was made up of irregularly distributed layers of cartilage and osseous tissue separated by fibrous bands.

The patient recovered and the cosmetic result was good. The recovery was retarded for long time however by an abundant suppuration which decreased only after the elimination of a large sequestrum involving the alveolar border and the soft palate. The right half of the vault of the palate was necrosed. Between the mouth and the nasal cavities and sinuses there was a large opening which caused marked nasal tone.

CH. LENOIR.

Iglauer S. Some Attempts at the Intranasal Transplantation of Nasal Tissues. *Ann Otol Rhinol & Laryngol* 93 vol. 303.

By *Surg. Gynec. & Obst.*

After limited series of experiments on animals, the author finds that though there are no technical difficulties in the transfer of intranasal tissue from one individual to another of the same species the surface transplantation will probably fail on account of infection. The submucous transplantation yields better results.

From his clinical experiments he finds that while surface transplantation is not very successful the submucous transplantation of nasal mucous membrane and underlying bone can be carried out with good prospects for the survival of the transplant but that the latter tends to become absorbed.

EARLE J. P. TIERRO.

Beck, J. C. Removal of Adenoids by Direct Inspection. *Ann Otol Rhinol & Laryngol* 93, 303, 373. By *Surg. Gynec. & Obst.*

The author claims that by his method of retracting the soft palate adenoids can be removed by direct inspection under ether anesthesia more thoroughly

especially around the Eustachian orifice. At the same time the primary tonsillar hemorrhage can be controlled.

The technique of the operation is as follows: One of the free ends of a small rubber catheter is passed through each nostril and withdrawn through the mouth. After the tonsils are removed the catheter is drawn out one end over each cheek. This brings the pillars into apposition, controls the tonsillar hemorrhage, and exposes the nasopharynx. With the head extended and the pharyngeal reflex abolished the adenoid mass can be seen and removed by direct inspection by the method approved by the operator.

ILLUSTRATION

Goodale J. L. Indications for and the Relative Value of Tonsillectomy and Tonsillotomy. *J. Internat. Cong. Med. Lond.* 93 Aug. By Surg. Cyrc & Obst.

It has not been demonstrated that complete removal of the tonsils is followed by a harmful effect upon the general system.

Tonsillectomy is not as usually less traumatic than does tonsillectomy, but the latter the method of removal is of primary importance. A sharp dissection down the tonsillar artery, the tearing of the vessels, is the least amount of inflammatory reaction.

Of the two operations tonsillectomy shows a higher percentage of septic complications because of the greater trauma usually occasioned, and also the relatively larger number of septic conditions which of late years are being considered.

The relative question of post-operative hemorrhage is not definitely established, but with the available methods of treatment there is no longer a serious complication, provided post-operative care is given.

While gross deformities of the parts involved are not likely to follow tonsillectomy, atrophic occlusion of the lacuna, which is frequent, and may lead to an intermaxillary deformity, chronic inflammation. Tonsillectomy in children should be followed by medical and hygienic treatment, but with good technique should have no other alteration than approximation and occasional partial fusion of the pillars.

The indications for operation should be such pathological changes of the tonsils as are actually detrimental to the individual.

Simple hyperplasia, if obstructive, or causing catarrhal conditions, and if permanent may be sufficiently treated by tonsillotomy, especially in children.

The systemic effects of chronic tonsillitis may be increased by tonsillectomy. In such cases, complete removal is preferable to partial removal. Although mild cases of chronic inflammation may be sufficiently relieved by appropriate treatment without excision.

Infection of the fauces due to micro-organisms may not be prevented by removal of the tonsils.

Recurrent local infections or general infections

having their origin in the tonsils require tonsillectomy as soon as a favorable moment for operating arrives. Tonsillectomy may be expected here to prove inadequate.

Recurrent acute catarrhal infections of the throat require complete removal of the tonsils if these show chronic inflammation, although immunity against subsequent attacks is not necessarily secured.

Local tuberculous of the tonsil requires complete removal of the organ.

In young children with adenoid enlargement requiring removal, the tonsils should not be excised, even if they cause demonstrable injury or favor attacks of acute middle-ear inflammation.

If an impairment of the speaking voice is dependent upon tonsillar disturbances, these may be corrected according to the principles already given, and if tonsillectomy is indicated, it may be performed with proper technique without anxiety.

In singers, slight alteration in the tension of the palatal muscles may influence the voice either favorably or unfavorably. In the case of beginners, the harmful alterations of the tonsils, partial or complete removal may usually be effected if the local or general welfare of the patient demands it. With increasing length of singing experience, correspondingly conservative attitude should be maintained, particularly in respect to truly fine voices.

De Sa, H. P. R. W. The Pathology of the Various Acute Inflammations of the Throat and Neck Including Acute Oedema, Pharyngitis, Epiglottitis, and Angina Ludovici, but Excluding Diphtheria. *J. Internat. Cong. Med. Lond.* 93 Aug. By Surg. Cyrc & Obst.

This paper was a report of eight cases of acute septic inflammations of the throat in which bacteriological examinations were made. The cases were as follows: (1) erysipelas of the pharynx; (2) acute septic inflammation of the tonsil and pharynx; (3) acute suppurative inflammation of the throat; (4) acute pharyngitis due to streptococcus pyogenes followed by septicaemia, deep glandular inflammation and pericarditis; (5) acute suppurative inflammation of the larynx; (6) acute catarrhal septic laryngitis; (7) acute septic inflammation of the tonsil and pharynx; and (8) acute septic inflammation of the pharynx, tonsils, and buccal mucous membrane with inflammation of the submucillary cellular tissue.

All of the patients except one were adults in the prime of life. The one exception was a boy 13 years of age. All of the patients were males and previously had been in excellent health. Five of them were hospital patients, and three private patients. In all, the streptococcus predominated in the coverglass preparations and cultures. Six of the cases were treated with some form of antistreptococcus serum; one case had an autogenous vaccine in addition. In one case the subsequent history is unknown as the patient refused to enter the hospital.

another case serum and vaccine treatment were refused, but the patient recovered. In three cases the prognosis was very unfavorable (Nos. 3, 4, and 5). All of the six cases treated made excellent recoveries as did also the patient who refused serum treatment.

The history, clinical symptoms, the course of the disease and more particularly the bacteriological examination of this series of cases indicate their pathological identity and point to the conclusion that each one should be considered as showing merely a different degree of virulence of one and the same pathological process. The micro organisms that are the chief causative factor belong to the streptococcus pyogenes group. Other organisms however may be and are, found not infrequently more than one organism is present. There is however no one specific organism for every one of these various inflammations. The different localization of these septic inflammations depends upon the resisting powers of the parts attacked. An accidental breach of the surface or pre-existing condition of catarrh renders part more susceptible to infection.

The prognosis of such cases is always very grave. The sooner this fact is recognized by the general practitioner the better. Heart failure is the great danger and it is by no means uncommon for fatal cases to result in twenty-four or forty-eight hours from the onset of the malady. Ludwig's angina should be included in this class of cases and is particularly dangerous to life. In addition to the usual methods of treatment citric acid in 60 gr doses may be prescribed to lower the coagulability of the blood so that the lymph that contains large amounts of antibacterial and antityptic bodies may be freely admitted to the infected parts and the organisms thereby destroyed before the formation of pus.

The main points in the treatment of these inflammations are early recognition, skilled bacteriological examination, including examination of the blood, and isolation if possible of the offending micro-organism, and serum vaccine treatment.

A serum should be given as early as possible. It should, moreover be of a type that most nearly

approaches the autogenous variety. Following the use of serum or in combination with it an autogenous vaccine should be given as soon as prepared.

The author attributes the recovery of all of his cases to treatment along these lines.

Botey R. The Best Method for Extirpating the Larynx (Quelle est la meilleure méthode d'extirpation du larynx?) *T. Internat. Cong. Med., Lond.,* 9 J Aug.
By Surg., Gynec. & Obst.

Botey discusses the various methods of laryngectomy and points out the advantages and disadvantages of each. The method of preference is Gluck's method. Gluck makes two lateral flaps which give a good view of the field of operation. He then cuts all vessels between two ligatures and extirpates the larynx from above downward, suturing the wound completely before separating the vocal organ from the trachea. This effectually prevents the entrance of septic liquids into the trachea. The glands are removed if they are at all diseased. The trachea is not separated from the esophagus so there is no necrosis of the rings or degeneration of the posterior wall. This method has been more successful than any other in avoiding broncho-pneumonia and mediastinitis. Gluck reports 63 cases in which there was no death from operation. The operation without removal of the glands requires an hour with removal of the glands, two hours. For patients who cannot stand so long an operation, Le Bec's method in two stages separated by an interval of three weeks is to be preferred. General anesthesia is better than local except for very stoic patients. Botey uses Schleich's mixture, chloroform ether and ethyl chloride, given with an apparatus that mixes oxygen with them automatically.

Special care should be taken in regard to asepsis, and the operation should be performed with all possible speed. The patient should be unusually well nourished before the operation. These precautions, with heat and heart tonics, will prevent surgical shock.

Intelligent and well-trained patients will learn to speak with their pharyngeal voice, and Botey has constructed an apparatus to aid them. A. Goss.

especially around the Eustachian orifice. At the same time the primary tonsillar hemorrhage can be controlled.

The technique of the operation is as follows: One of the free ends of a small rubber catheter is passed through each nostril and withdrawn through the mouth. After the tonsils are removed, the catheter is drawn taut, one end over each cheek. This brings the pillars into apposition, controls the tonsillar hemorrhage, and exposes the nasopharynx. With the head extended and the pharyngeal reflex abolished, the adenoid mass can be seen and removed by direct inspection by the method approved by the operator.

ELLEN J. F. REESEN

Goodale J. L. Indications for and the Relative Value of Tonsillectomy and Tonsillotomy
J. Internat. Cong. Med. Lond. 9, 3, Aug.
By Surg. Genec. & Obst.

It has not been demonstrated that complete removal of the tonsils is followed by a harmful effect upon the general system.

Tonsillotomy involves usually less trauma than does tonsillectomy but in the latter the method of removal is of primary importance. A sharp dissection down to the tonsillar artery with snaring of the vessels, gives the least amount of inflammatory reaction.

Of the two operations tonsillectomy shows larger percentage of septic complications because of the greater trauma it usually occasions and also the relatively larger number of septic conditions under which of late years an operation is undertaken.

The relative frequency of post-operative hemorrhage is not definitely established but in view of the available methods of treatment it is no longer a serious complication if dependent upon local cause.

While gross deformities of the parts involved are not likely to follow, ossification in the intertricular spaces of the lacunar orifices is frequent and may lead to an internalization of the original bronchial inflammation. Tonsillectomy in unskilled hands may be followed by marked and injurious distortion but with good technique should have no other alteration than an approximation and occasionally partial fusion, of the pillars.

The indications for operation should be the pathological changes of the tonsils as are actually detrimental to the individual.

Simple hyperplasia, if benign and of local conditions, and if persistent may be sufficiently treated by a tonsillotomy especially in children.

The systemic ill effect of chronic tonsillitis may be increased by a tonsillotomy. In such cases complete removal is preferable to partial removal although mild cases of chronic inflammation may be sufficiently relieved by appropriate treatment without excision.

Infection of the staves due to micro-organisms may not be prevented by removal of the tonsils.

Recurrent local infections or general infection

Intraperitoneal employment of collargol in diffuse purulent peritonitis. R. JELKE. *München med. Wchnschr.* 9 3, 15, 325.

Happy outcome of case of tubercular peritonitis. GUNDA. *Rev. de Clin. med. de Barcelona* 9 3, xviii, No. 7.

A case of tubercular peritonitis cured at Lourdes. D. D. J. d. sc. méd. de Lille, 9 3, xxvii, No. 32.

The treatment of ascitic tuberculous peritonitis (laparotomy and lavage with oxygen-impregnated aër). GRACCO. *Clin. chir. Milano*, 9 3, xxi, N. 7.

The operative treatment of peritoneal and genital tubercles. O. SCHMIDT. *Ztschr. f. Geburtsh. u. Gynäk.* 19 3, liii, 404.

Pseudomyoma of the peritoneum of appendicular origin. DUBREUIL. *Rev. de gynéc. et de chir. abdom.* 9 3, xxi, No. 2.

Atmospheric air in the abdomen following laparotomies. MAX CORRE. *Berl. klin. Wchnschr.* 9 3, 1, 35.

Abdominal adhesions. J. T. BURTON. *Va. Med. Sem. Monthly*, 9 3, xviii, 8.

Cases of rare form of inguinal hernia. CHERPACOT. *Chirurges, St. Pétersb.*, 9 3, xxxiii, N. 94.

Inguinal hernia of the female genitalia, hernary adenitis. DANIEL. *Beitr. z. Geburtsh. Gynäk.* 9 3, xvi, No. 2.

Pathogenesis of encysted hernia and encysted communicating hernia. SELTZER and KUTZELNIG. *Beitr. path. Anat. u. z. allg. Path.*, 9 3, lvi, N.

Epigastric hernia. DREHER. *J. d. Prat. Par.* 9 3, xvi, No. 34.

Epigastric hernia of the stomach. MANTU. *Gior. d. Acad. di Med. di Torino*, 9 3, lxvii, N. 7-4.

Painful epigastric hernia as symptom of gastric ulcer. ALBERGHELI. *Policlin.*, Rome, 9 3, xv, N. 1.

Intra-appendicular hernia of the appendix. L. W. ALLEN. *Surg. Gynec. & Obst.* 9 3, xvi, 9. [622]

Cases of incarcerated internal hernia in the region of the bladder. THORICA. *Can. lek. öfkr.* 9 3, li, 83.

Retrograde incarceration of the intestine in hernias. von WITTMANN. *Deutsche Ztschr. f. Chir.* 9 3, cxvii, 2. [623]

The reduction of hernia. T. G. GALE. *Mass. M. J.* 9 3, No. 8, 395.

Local anesthesia in the radical cure of hernia. T. K. OULT. *W. Va. M. J.* 9 3, viii, 31.

Radical cure of hernia by bowed sutures of metallic thread. ROUX DE BERNOLLES and WELLS. *Marseille med.* 9 3, l, No. 6.

Importance of early operation for the radical cure of hernia. H. W. ALSTON. *N. Y. M. J.* 9 3, cxviii, 39.

A new operation for the cure of indirect inguinal hernia. C. C. BATES. *Northwest Med.* 9 3, 1.

Some reasons for advising no delay in operating all forms of hernia. J. FRAYLER. *N. Y. M. J.* 9 3, cxviii, 378.

The radical operation of inguinal hernia. H. DRUCKMAYR. *Verhandl. d. Gesellschaft deutsche Naturforsch. u. Ärzte*, 9 3, 4, part 30.

Technique of radical operation for inguinal hernia. KLEINSMIDT. *München med. Wchnschr.* 9 3, li, 236.

An improvement upon the Lohsch-Fodder radical operation in cranial hernias by the employment of free anastomotic grafts. GÖNNEL. *Zentralbl. f. Chir.* 9 3, li, No. 33.

Plastic operation to close defect in inguinal hernia. E. FOX. *Verebow Arch. f. path. Anat. et* 9 3, cxviii, 304.

Prolapse of omentum and stomach caused by punctured omentum had penetrated the thoracic and abdominal cavities. ALFRED KIESCHKE. *Dissertation*, Königsberg, 9 3.

Primary hydatid cyst of the great omentum. FERRER. *Presse med. Par.* 9 3, xxi, N. 64.

Abscess of the omentum as following necrosis of the pancreas. BRITTON. *Mitt. a. d. Grenzgeb. d. Med. u. Chir.* 9 3, xvi, No.

Tumor of the omentum with twist of pedicle giving symptoms of acute appendicitis. G. LEROUX LAURE. *Med. Rec.* 9 3, lxvii, 305.

A case of thrombosis of the mesentery. DROUIN and PARCILLER. *J. de Med. de Bordeaux*, 9 3, lxvii, No. 33.

Thrombosis of the mesentery. E. LAPLACE. *T. Internat. Cong. Med. Lond.* 9 3, Aug. [624]

Dermoid cyst of the mesentery. CASTELLO. *Rev. de Med. y Cir. Habana*, 9 3, xvii, No. 1.

Gastro-Intestinal Tract

Tests for secretion and motility of the stomach. J. SCHUTZ. *Wien. med. Wchnschr.* 9 3, liii, 917.

Organic gastritis. MARK L. KRAFF. *Med. Council*, 9 3, xvii, 303.

The relation of the roentgen picture of the human stomach to its anatomical structure. Contribution to the anatomy and physiology of the stomach. GÖTT. FOWELL. *Arch. Atlas d. norm. u. path. Anat. m. typischen Röntgenbildern*, Hamburg, 9 3, xii.

Present status of radiographic examination of stomach and intestines. HOLLANDER. *Arch. d. electr. med. exp. clin.* 9 3, xxi, N. 354.

Recent results obtained in radiology of the stomach. HERTER. *Beitr. klin. Med.*, 9 3, ix, 77.

The value of X-ray pictures in the distended stomach as means of checking the bismuth picture. W. ROHM. *Verhandl. d. Gesellschaft. deutscher Naturforsch. u. Ärzte*, 9 3, d, part 2, 90.

A method of obtaining radiograph of the stomach in any particular phase of its contraction. C. THURSTAN HOLLAND. *Arch. Röntg. Ray* 9 3, xviii, 98. [623]

The positive value of the roentgen method in the diagnosis of gastric and duodenal lesions. A. W. GEORGE. *T. Am. Röntg. Ray Soc. Boston*, 9 3, Oct. [623]

Study of the mechanism of the stomach after gastroenterostomy by means of the X-ray. JOHN H. OUTLAND. E. H. SARGENT and LOGAN CLIMMENDEN. *Surg., Gynec. & Obst.* 9 3, xvi, 75. [624]

Mechanism of stomach and gall bladder. HORTWOLD. *Med. Klin. Berl.*, 9 3, li, 1450.

The metabolism of cretins and cretinism in severe lesions of the stomach. LAURA ORRILL. *Internat. Beitr. z. Path. Therap. d. Ernährungsorg.* 9 3, iv, 43.

Diagnosis and differential diagnosis of gastro-duodenal lesions. L. G. COLLE. *T. Am. Röntg. Ray Soc., Boston*, 9 3, Oct. [624]

A case of acute dilatation of the stomach complicating pneumonia. EDWARD H. GOODMAN. *N. Y. M. J.* 9 3, cxviii, 30.

The rôle of gastric and intestinal stasis in some cases of epilepsy. HALE POWERS. *Boston M. & S. J.* 9 3, cxviii, 30.

Indications afforded by X-rays for and against operations in diseases of the stomach and results of such operations. A. H. FRETZ. *T. Am. Röntg. Ray Soc., Boston* 9 3, Oct. [625]

Diagnosis of gastric ulcers suddenly penetrating into the free abdominal cavity. HA. RYDER. *Cor. N. L. u. d. c.*, *Art.* 9 3, xii, 90.

Reply to Steigmann's remarks. KULENKAMPFF. Zentralbl. f. Chir. 9 3, xl, No. 3.

Experiences with Steigmann's nail extension method in fractures of the femur. JOHN C. A. GERRARD. Ann. J. M. Sc. 9 3, cxlv, 57.

An apparatus for nail extension treatment which will not become displaced. N. SEIDEL. Deutsche med. Wochenschr. 9 3, xlvii, 202.

Treatment of radial fractures. A. TROELL. Allg. even. Läkarsk. Stockholm, 9 3, 577. [638]

Fracture of the humerus with radial paralysis. DELBERT. J. d. Prat. Par. 9 3, xxvii, No. 3.

Current methods of treating fractures of the humerus. VROYER. Chirurgical, St. Petersburg 9 3, xxxii, No. 93.

Fractures and pseudarthroses of the bones of the leg in infants. KERNHOFF. J. d. Prat., Par. 9 3, xxvii, No. 32.

Fracture of the femur. G. E. ARMSTRONG. T. Internat. Cong. Med., Lond., 9 3, Aug. [638]

Rare form of fracture of the knee-joint. O. BARNES. St. Petersburg. med. Ztschr. 9 3, xxviii, 89.

Fractures of the knee joint. GOTTSCHEW. Zentralbl. f. Chir. 9 3, xl, 145.

An interesting case of fracture of the lower third of the leg, with spry and separation of the tibia. Its mechanism and the mechanism in general of fractures of the lower third of the leg. BOUYER. J. d. med. de Bordeaux, 9 3, lxxvii, No. 32.

Three cases of complicated luxation. ALBAUGH. Rif. med., Naples, 9 3, xxxi, No. 3.

A rare complication of luxation of the humerus. CIRIO-LINO. Gazz. d. osp. d. Chir. Milano, 9 3, xxxiv, No. 93.

A typical injury of the medial condyle of the femur. PAUL EWALD. München. med. Wochenschr. 9 3, lx, 662.

Congenital backward luxation of the knee-joint. LALAN-RAO. Med. Klin. Berl. 9 3, ix, 27.

A rare case of congenital luxation of the knee joint. ALBERT WAGNER. Deutsche Ztschr. f. Chir. 9 3, cxviii, 90.

Injury of the crucial ligament of the knee-joint. II. GÖTTGER. Deutsche Ztschr. f. Chir. 9 3, cxviii.

Luxation of the internal meniscus of the right knee reduction. ROUX DE BEZONVALLES. Marnette med. 9 3, l, No. 6.

Lateral displacement of the meniscus. BLECHER. Deutsche Ztschr. f. Chir. 9 3, cxviii, 60.

Rare traumatic injuries of the foot (posterior luxation of the foot). P. M. FRANK. Chirurgical, St. Petersburg, 9 3, xxxii, 208.

Luxation of the foot below the ankle. NIC P. DE NORAK. Mag. f. Litteratur, Christiania, 9 3, lxxv, 634.

Surgery of the Bones, Joints, etc.

The open treatment of fractures. New remark. P. D. WITT. Nashville J. M. & S. 9 3, cxi, 337.

An absorbable plate for use in open treatment of fractures. AUSTON MCGILVER. J. Am. M. Ass. 9 3, lxi, 512.

Open treatment of fractures (osteomyelites) with special consideration of the permanent results obtained. TRÖLL. Nord. med. Arch. Stockholm, 9 3, xli, (Chir. F.)

A review of the treatment of old fractures of the patella. GUSTAF and GATTELLER. Rev. de chir., Par. 9 3, xxxiii, No. 8.

Cauterization of bone for loss of substance before filling the cavity. FARRA. rif. Ref. med., Naples, 9 3, xxix, No. 31.

Plugging bone cavities with free transplantation of fat. M. KRABBE. Berl. z. klin. Chir. 9 3, lxxv, 400. [639]

A case of bone graft from one man to another for the restoration of the lower half of the femur. RÖNNER. Hosp. Tid. Kjöbenhavn 9 3, lvi, No. 3.

Three attempts at grafts of bones and joints. MAN-CLARE. Bull. med., Par. 9 3, xxvii, No. 66.

Repair of phalanx of finger. LACER. München. med. Wochenschr. 9 3, lx, 852.

Treatment of syndactylism. G. LERNA. Zentralbl. f. Chir. 9 3, l, 506.

The operative treatment of snapping hip of loose tracts about the hip. R. WERN. Monatschr. f. Unfallchir. u. Orthopädie, 9 3, xi, 62. [639]

Mobilization of ankylosed hip-joints. BACHMANN. Zentralbl. f. Chir. 9 3, xl, 337.

The end results of Lexer's arthrodesis of the acetabulum. M. SCHWARTZ. Arch. f. klin. Chir. 9 3, cl, 000. [639]

Experimental researches on the role of the epiphyseal cartilage in operative interventions on the joints. RAZZ-BOVI. Pubblica. Roma, sec. chir. 9 3, xi, No. 8.

Reversion of the posterior tarsus. DEFRAY. Ann. Soc. chir. de chir., 9 3, xxi, 97. [639]

Free transplantation of tendons. R. GIBELL. Verhandl. d. Gesellsch. deutscher Naturforsch. u. Ärzte, 9 3, Part 43.

Tendon transplantation on talipes from anterior polymyositis. B. F. ZIMMERMAN. Ann. J. Surg., 9 3, xxv, 297. [640]

Tendon fixation—an operation for the prevention of deformity in infantile paralysis. W. E. GALT. Am. J. Orth. Surg. 3, xi, 5.

Transplantation of the intermediate cartilage to the distal epiphyses of the radius. HELLER. Zentralbl. f. Chir. 9 3, xl, 376.

Surgical treatment of the consequences of infantile paralysis. WITTE. Marnette med. 9 3, l, No. 5.

Orthopedics in General

Value of medical inspection of schools in regard to orthopedic diseases in general and deviations of the spinal column in particular. METZ. Rev. med. de l'Est, Nancy, xiv, 9 3, h, 5.

Orthopedic surgery. GUST ALBERT WOLLERSTEIN. Leitf. d. prakt. Med. Leipzig, 9 3, x.

Progress in orthopedic surgery. J. E. JORDA. Pédic. nos. 3, xxi, 500.

Indications for orthopedic surgical treatment in infantile paralysis. ALBERG. Klin. therap. Wochenschr. 9 3, xi, h, 12.

The treatment of old congenital luxations of the hip-joint. CRAMER. Zentralbl. f. Chir. med. Orthop. 9 3, vi, h, 0.

The X-ray photograph of Genu valgum. MOURVET. Ztschr. f. Orthop. Chir. 9 3, xxvii, 47.

Large plaster cast of the lower extremity (apparatus for counter). SOUVERA. Prov. med. Par. 9 3, xxvi, No. 3.

Hall's virus. DORA and VERNER. L'Echo med. de Nord, Lille 9 3, xvii, No. 11.

A suspended sole for wear in flat-foot. FRANKENBERG. Zentralbl. f. Chir. med. Orthop. 9 3, vii, No. 9.

Bandage to be applied under plaster in treatment of club foot. BRECKWITZ. München. med. Wochenschr. 1913, lx, 490.

Human carriers in poliomyelitis. W. P. LOUIS and R. E. OSOCCO. Am. J. Orth. Surg. 9 3, xi, 15. [640]

SURGERY OF THE SPINAL COLUMN AND CORD

- Roentgen ray diagnosis of the lumbar spine and the sacro-iliac articulations. C. H. BURROUGHS. I Am. Ray Soc., Boston, 9 3 Oct. [640]
- Compressed fracture of the spinal column. Hile King. *Gedragt. Noord. Mag. f. Legerwetd.* Christiaan Huy No. 8.
- Osteogenic prevertebral tumors. F. ARNDT. *Deutsche Zeitschr. f. Chir.* 49 3, Berlin, Nov. 5-6.
- A frequent anomaly of the lower thoracic spinal column. WILHELM GÖTTSCHELOW. *München med. Wchnsch.* 1913, 5, 1572.
- Defects within the lower spinal canal. HORACE ELLER. *J. Clin. St. Med. Ass.* 9 3 vi, 14.
- The clinical significance of occult spina bifida. EDUARD KERNIG. *Berl. Klin. Wchnsch.* 9 3 L 48.
- Analysis of the spinal column. R. GOLAN. *Russk. Vrach. St. Peterb.* 913, xii, 70.
- Rigidity of ankylosis of the spine with nervous symptom complex. BECHTOLD. *Russk. Vrach. St. Peterb.* 9 3 ix, Nov 30-31.
- Rigidity of the vertebral column. H. LA. *Russk. Vrach. St. Peterb.* 913 xii No. 20.
- Scoliosis its prognosis. JOHN L. FORTY. *Am. J. Orth. Surg.* 9 3 xi, 4.
- Hypertical scoliosis. KERNIG. *Berl. Klin. Wchnsch.* 1913, 5, 1495.
- Appendix scoliosis. J. ELLER. *Zeitschr. f. orth. Chir.* 19 3 xxix, 277.
- Congenital scoliosis traceable to the presence of semi-vertebrae. DUBOUCHÉ-CRANZL. *Arch. gén. de Mé.* 1913 vi, No. 7.
- The physiological treatment of pathological scoliosis by traction. A. M. FORBES. *Brit. M. J.* 9 3 i, 1.
- Modern treatment of scoliosis, how to treat it differently. CALOT. *J. d. Prat.* Par. 3 xxvii No. 34.
- The treatment of scoliosis. R. W. LON. *T. Inter. Cong. Med.* Lond., 9 3, Aug. [641]
- The treatment of lateral curvatures of the spine by the Fehes method. Z. B. ADAMS. *Am. J. Orth. Surg.* 9 3 xi, 67.
- The rotation treatment of scoliosis. A. M. FORBES. *Am. J. Orth. Surg.* 913 xi, 75.
- The treatment of scoliosis, especially by Abbott method. F. BRITZKE. *Prag. med. Wchnsch.* 9 3 xxviii, 47.
- Abbott's technique in the treatment of scoliosis. KOWATZ. *Preigl. lek. Kralow* 9 3 li N.
- The treatment of scoliosis after Abbott method. P. A. BELLEQUE. *Belgique med.* 9 3, xv, 375.
- The treatment of scoliosis after Abbott method. VAN NIECK. *J. med. de Bru.* 9 3 xxi No. 20.
- Abbott's method of treating grave cases of scoliosis. D. M. VAN DE LA POLLE. *centr. de Bru.* 9 3, vii.
- Cervical jacket in the treatment of structural scoliosis. Special reference to measurement and record. A. H. LEE. *Am. J. Orth. Surg.* 9 3 xi, 30.
- Introduction to the symposium on lateral curvature. A. C. LEE. *Am. J. Orth. Surg.* 9 3 xi.
- Measurement of positions of the normal spine and their relation to lateral curvature. E. G. ABBOTT. *Am. J. Orth. Surg.* 9 3 xi, 3.
- A consideration of the correction of the fixed types of lateral curvature complicated by visceral derangements, especially those of the cardiac variety with slight modification of Abbott method. R. O. REYNOLDS. *Am. J. Orth. Surg.* 9 3 xi, 46.
- The forcible correction (Abbott method) of rotational curvature of the spine. Preliminary report. WALTER F. STEIN. *Ohio St. M. J.* 9 3, iv, 75.
- A case of cervical spondylitis cured by lebotherapy. KERNIG and FRANKFURTER. *Wien. med. Wchnsch.* 9 3 lxi No. 35.
- The treatment of spondylitis. A. HENDEL. *Verhandl. d. Gesellsch. deutscher Naturforsch. u. Ärzte.* 9 Part 9.
- What to do after corrective jackets removed. E. H. BARNARD. *Am. J. Orth. Surg.* 913 xi, 63.
- A case of cutaneous spondylarthritis. HERRMANN SANDER. *München med. Wchnsch.* 9 3 ix, 830.
- Transplantation of part of the tibia in the treatment of Pott disease. GOSSET. *Arch. med-chir. de Normandie.* 9 3 iv No. 7.
- Anomalies of the sacro-lumbar articulation. E. S. HATCH. *N. Or. M. & S. J.* 9 3 livi, 9.
- The treatment of chronic progressive diseases of the spinal cord by X-rays with an account of two cases. FRANCIS HEERMAN-JORDHOV. *Brit. M. J.* 9 3 ii, 209.
- The treatment of spondylitic paralysis. P. BADO. *München med. Wchnsch.* 9 3 ix, 452. [641]
- La epidermisation de myelomeningocèles. M. R. BOVET. *Arch. Vichon's Arch. f. path. Anat., etc.* 9 3 cxxvii 3.

SURGERY OF THE NERVOUS SYSTEM

- New facts in regard to the nature of scabies and new methods for the operative treatment of the disease. A. STORZ. *München med. Wchnsch.* 9 3 ix, 255 [642]
- Some cases of scabies cured by the injection of strychnine. RATTVAAT. *Vrach. Gaz. St. Peterb.* 9 3 xi No. 3.
- Treatment of scabies. SCORPIO. *München med. Wchnsch.* 9 3 ix, No. 35.
- Chromato-neuro-epithelioma in the gluteal region. C. KOWATZ. *Zeitschr. f. d. ges. Neurol. u. Psychiatr.* 9 3 xvi, 500.
- Traumatic bilateral external rectus paralysis with transient paralysis of the left facial nerve. E. A. SERRA. *Med. Rec.* 9 3 lxxvi 340.
- The operative treatment of traumatic paralysis of peripheral nerves. LONGBOTTOM. *Deutsche Zeitschr. f. Chir.* 9 3 cxviii, Nov. 5-6.
- Treatment of neuritis of the brachial plexus (th. Kulenkampff's anesthesia). M. TOSCANI. *München med. Wchnsch.* 9 3 ix, 843.
- Schöffer's operation. KOLLIKER. *Zentralbl. f. Chir.* 9 3 xi, 37.

DISEASES AND SURGERY OF THE SKIN FASCIA APPENDAGES

- Treatment of burns from heliotherapy. *Ann. Gaz. d'Hôp., Par* 9 3, lxxvi, No. 22.
- Treatment of burns from heliotherapy. *MIRAMONTE DE LA ROQUETTE. Gaz. d'Hôp. Par.*, 9 3, lxxvi, No. 22.
- Treatment of burns by antioxydant therapy. *Berliner. Med. Woch. St. Petersburg*, 9 3, xii, No. 3.
- Treatment of burns by Rönning's method. *Indian. Hosp. Tid. Kjöbenhavn*, 9 3, li, N. 31.
- Burns treated after the method of Rönning. *O. WILLY. Hosp. Tid. Kjöbenhavn*, 9 3, li, N. 2.
- A case of primary, clinomycosis of the skin incubation and latent period of actinomycosis. *HOLLAND. Acad. Med. f. Leyden*, Christiania, 9 3, lxxvi, No. 2.
- Neuronic cutis (dolorosa). *AL. L. HENDERSON. J. Am. M. Ass.*, 9 3, li, 405.
- Case of X-ray ulcer lasting eleven months with no tendency to healing, recovery after use of Zeller's paste. *R. LARY. Prag. med. Wochenschr.* 9 3, xxxvii, 498.
- Treatment of varicose ulcers with simple adhesive

- plaster bandages. *Wien. med. Wochenschr.*, 9 3, li, 290.
- Treatment of chronic ulcers of the leg. 14th special reference to etymology and diagnosis. *E. ADAMS. Internat. J. Surg.* 9 3, xxi, 186.
- Free transplantation of leucis. *J. SANCHEZ. Rev. Med. Woch. St. Petersburg*, 9 3, xii, 196.
- Free transplantation of fascia. *H. HANSEN. Scand. Gynaek. Rundschau*, 9 3, vii, 429.
- Experimental work in fascia transplantation. *VALLEY. Deutsche med. Wochenschr.* 9 3, xxxii, No. 31.
- Experimental researches on homoplastic transplantation of leucis. *VALLEY. Beitr. z. klin. Chir.* 9 3, lxxv, N. 3.
- Presents of autoplasmic free transplantation of leucis. *KRISTENSEN. Beitr. z. klin. Chir.* 9 3, lxxvi, No. 3.
- Some modifications in the technique of Ochterlough grafts. *HANSEN. Presse med., Par* 9 3, xii, No. 68.
- Skin grafting. *WALTER R. PARKER. J. Mich. St. Med. Soc.* 9 3, xii, 414.

MISCELLANEOUS

Clinical Entities—Tumors, Ulcers, Abscesses, etc.

- Diagnosis and pathology of the polyglandular system. *KARL CESTAL. Deutsche Arch. f. klin. Med.*, 19 3, cx, 571.
- Predisposition for tumors. *M. GOLDZWEIG and E. ROSENTHAL. Ztschr. f. Krebsforsch.*, 19 3, xii, 3.
- The positions of tumors in nature. *F. DE QUERVAIN. Leipzig. Vogel*, 9 3.
- Biology morphologic origin and cause of tumors of men and animals. *KUTELA. Čes. lek. čas.* 9 3, li, Nos. 24-25-26.
- Tumors and tumors. *STEINHAUS. Polische. Biulet.*, 9 3, xii, No. 4.
- On the value of fast growing cell groups. *AL. JAKOV. T. Internat. Cong. Med., Lond.*, 9 3, Aug. 1927.
- Spontaneous and artificial development of plant cells in vitro. *G. C. WELLS. J. Pathol. and Bacteriol.*, 9 3, xvi, No. 1.
- The association of tuberculous and malignant growths. *W. H. HARRIS. J. Med. Research*, 9 3, xxxiv, 47.
- Experimental cancer. *COFFMAN. Presse med., Par* 9 3, xii, No. 45.
- The present status of the theory of cancer. *CARL LEWIS. Naturwissenschaften*, 9 3, 585.
- New procedures in diagnosis of cancer. *F. OSTER. Ujds. Vejsnik, Agazs. xvii*, No. 6.
- The Wassermann reaction in cancer. *FREDERICK J. FOX. Med. Rec.* 19 3, lxxvii, 283.
- Americ cancer. *NUTT BEATTIE, and PETER SMITH. Lancet, Lond.* 9 3, cxxxv, 21.
- Experimental transplantation of cancer cells. *STRAUCH. Berl. klin. Wochenschr.* 9 3, li, N. 3.
- The local incidence of cancer in relation to food. *C. E. GRIFFIN. Edinb. M. J.* 19 3, xi, 44.
- Disturbances in the albumin metabolic of cancerous subjects. *F. V. SALT. Wien. med. Wochenschr.* 9 3, li, 750.
- Investigations on capacity for mesodermic reactions of the extracts of various types of on the human cancer cells

- G. KELLING. *Wien. klin. Wochenschr.* 9 3, xvi, 15.
- Case of carcinoma. *E. FERTIG. T. Internat. Cong. Med. Lond.*, 9 3, Aug. 1927.
- Experimental data on mouse carcinoma. *EDVY. ERKARD. München. med. Wochenschr.*, 19 3, li, 454.
- Observations of small rodents of mouse carcinoma. *FR. HENCK. Ztschr. f. Krebsforsch.* 9 3, xii, 303.
- May carcinoma heal spontaneously? *A. THEILACKER. Deutsche med. Wochenschr.* 9 3, xxxii, 114.
- The diagnostic value of increased content of neutral sulphur in carcinomatous patients. *ALY. E. J. Russ. Woch. St. Petersburg* 9 3, xii, 39.
- The disappearance of round-celled sarcoma in the course of erysipelas. *AL. INGRAM. Nippon-Geka-Gakkaishu*, 9 3, xiv, 65.
- Generalized sarcomatosis. *KRISTENSEN. J. de Med de Bordeaux*, 9 3, lxxv, No. 32.
- The question of sarcomatous tumors in dogs. *ANTHONY. Chir. med. J.* 9 3, xv, 271.
- Treatment of hyponascent. *PASLAR. München. med. Wochenschr.* 9 3, li, No. 34.
- The present status of our knowledge of malignant granuloma, with special consideration of its etiology. *OSCAR MITTER. Folia hematol.* 9 3, xv, 203.
- Erythritic granuloma. *B. MAYBROCK. Osterr. woch. Vierteljahrsh. f. Zahn.*, 1927, 60.
- Chondro-epithelioma. *C. B. KIRBY. Internat. J. Surg.* 9 3, xvi, 285.
- Fibroma with twisted pedicle. *S. POER and G. ROCHER. Bull. et inf. Soc. anat. de Par.* 9 3, lxxvii, 185.
- Note on case of symmetrical lipomatosis. *MARTIN. Paris med., Par.*, 9 3, No. 36.
- A case of botryoid carcinoma in man. *BORSTLING. Clin. chir. Mäsko*, 9 3, xxi, No. 7.
- Tropical abscess. *ZUR WITTE. Deutsche med. Woch. Ztschr.* 9 3, xii, 584.
- Abscess due to streptococcal epiglottitis (actinomycosis) resembling staphylococcal infection. *W. BENDISCH. Arch. Brit. M. J.*, 9 3, li, 290.
- Some unusual cases of hydatid disease. *H. O'HALL. Med. Press & Circ.*, 19 3, xvi, 224.

Venous thromboses of the right arm, called phlebitis from *venarum*. *Phlebot.* Paris med., 9 3 No. 37.

Fat embolism. *WILLIAM S. WALKER.* Hosp. Bull. Univ. Md., 9 3 ix 97.

Fat embolism of the large circulatory vessels and its causes. *FRANZOSER.* Mitt. u. d. Grenzgeb. d. Med. u. Chir. 9 3 xvi, No.

Experimental researches on gas embolism follow long injection of air into the bladder. *CARLO CASTRO.* Bull. d. sc. med., Bologna, 9 3 lixiv 40.

Direct transfusion of blood. *H. LÖSCHE.* Verhandl. d. Gesellsch. deutscher N. turloroch. Arzt. 9 3 ix, part 78.

A simplified method of direct blood transfusion with self-retaining tubes. *L. H. LAYDON.* J. Am. M. Ass., 9 3 ix, 400.

Blood and Lymph Vessels

Study of aneurysms of the small vessels, case of traumatic aneurysm of the radial artery from subcutaneous lesion. *DORNOVOLSKAIA.* Prati. Vrach. St. Peterb. 9 3, xii, No. 19.

Aneurysm of arteries of small caliber. *DORNOVOLSKAIA.* Prati. Vrach. 9 3 lixiv No 3.

A case of aneurysm of the abdominal aorta associated with perforation of the stomach by sound stick. *S. M. ZITMAN.* Deutsche med. Wochenschr. 9 3, xxix, 45.

Varicose vein and coarctation. *LEVINSKY.* Monatsch. f. Unfallch. Invalidenvers. 9 3, xxix.

A palpitatory symptom of aortic insufficiency in bicuspid and bicuspid aorta. *E. HENSE.* Berl. u. klin. Chir. 9 3, lxxv, 59.

Operative treatment of aneurysms. *R. C. O'NEAL.* Prati. Vrach. 9 3, xii, No. 19.

Operative treatment of aneurysms after very small lesions. *HOLSTEN.* Zentralbl. f. Chir. 9 3, xi, No. 33.

Suprahepatic aneurysms in varicose veins. *WILHELM.* Berl. klin. Wochenschr. 9 3, lxxv, 396.

The compression of the abdominal aorta. *FELIX LA TOUR.* Chir. innov. 9 3, lxxv, 85.

Obstruction of the superior vena cava. *HEROLD.* Gaz. d. Hôp. Par. 9 3, lxxv, No. 87.

Wartling's operation. *NABATI.* Clin. chir. Milano, 9 3, xii, No. 7.

Vessel section in man for identifying the location of the vessels, and use in operations on blood vessels on the human subject. *DORNOVOLSKAIA.* Russk. Vrach. 9 3, xi, 95.

Rupture of the operation. *SIXON.* Berl. klin. Wochenschr. 9 3, lxxv, 397.

Transplantation of blood vessels. *CHAMBERLAIN.* Gaz. heb. d. sc. med. de Bord. 9 3, lxxv, No. 3.

The technique of intra-arterial administration. *BESSA.* Denver Med. Times, 9 3, xxxix, 43.

Hemiplegia disease. *LAGROUPE.* J. de Med. et de Chir. de Montreal, 9 3, xi, No. 6.

On lympho-vascular aneurysms and its relation to other systematized lesions of the lympho-vascular system. *H. GROSSCHMIDT.* Thèse de doct. Par. 9 3, lxxv, 1448.

Small vessel aneurysms of cancer and ulceration of an auxiliary lymph-gland. *PERRIN NADAL.* B. d. et méd. Soc. anat. de Par. 9 3, lxxv, 354.

A case of lympho-vascular aneurysm. *P. E. BERRY.* J. Am. M. Ass. 9 3, lixiv, 333.

Lesions of the thoracic duct in operations in the left supraclavicular region. *W. M. N. SARGENT.* Arch. d. chir. Klin., Prof. W. A. Oppel, Med. Akad. St. Petersburg, 9 3, lixiv, 5.

An acid fast bacillus from a case of ulcerated throat. *C. STREAN.* A. Austral. M. Gaz. 9 3, xxvii, 95.

Gia bacillus infection. *D. GUTHRIE.* Perth. M. J. 19 3 xvi, 863.

Bacterium lactis aerogenes causing fatal septicaemia. *MARGARET AND ZELM.* Zentralbl. f. Bakteriologie. 9 3, lixiv, 18.

An unusual case of septicopyemia. *W. B. COFFEY.* C. R. CANNON and W. T. CANNON. N. Y. M. J. 9 3, xxiiv, 377.

A case of streptococci, with survey of streptococci. *W. E. BROTHMAN.* Docteur, 9 3, No. 6.

History of the streptococcus in its importance in gynecology and obstetrics. *CHERNOFF.* Novos. med., St. Petersburg, 9 3, No. 3, 14.

Importation of cutaneous germs by the knife. *ALFRED STREINER.* Zentralbl. f. Chir. 9 3, xi, 1033.

Surgical Therapeutics

Diseases and excretion of urotropine in the human body and its relation to the differential diagnosis of hydrocephalus according to Strubbe. *W. ULLMANN.* Ztschr. f. Kinderheilk. 9 3, viii.

Unfavorable effects of hexamethyltetraamin (urotropine). *WILHELM COTTE.* München med. Wochenschr. 9 3, lixiv, 656.

An experimental study of sodium bicarbonate and other alkali salts in shock. *SEDLER.* THERY and ROYER. Ann. J. M. de, 9 3, lixiv, 57.

Experimental test of hormonal. *L. SCHLACHTER.* Arch. Internat. de pharmacol. et de therap. 9 3, xxiiv, 77.

The effect of morphine on the circulation. *E. ANDREAS.* Arch. f. exp. Path. u. Pharmacol. 9 3, lixiv, 331.

Influence of raw paraffin oil on the growth of epithelioma. *J. EMBERTON.* Berl. klin. Chir. 9 3, lxxv, 75.

Chemotherapeutic experiments upon cancerous subjects by the aid of sodium iodide-methyl blue. *A. B. L. L. L. L.* Berl. klin. Wochenschr. 9 3, lxxv, 396.

Injection of insoluble radium sulphate as an inoperable cancer. *LUDOVIC LEBLANC.* Arch. d'Electric. med., Bordeaux, 9 3, xii, No. 103.

The influence of copper upon the growth of mouse carcinoma. *A. J. GILBERT.* Brit. M. J. 9 3, lixiv, 213.

The extensive employment of camphor. *W. W. W. W. W.* Deutsche med. Wochenschr. 9 3, xxxix, 332.

Some notes on a new guaiacol chlor-iodide compound in the treatment of various conditions. *JOHN MARSH.* Lancet. Lond. 9 3, lixiv, 24.

The present state of research post treatment of suppurative lesions and empyema. *EMIL G. BERRY.* T. Internat. Cong. Med., Lond. 9 3, Aug. 1913.

Novelness in the treatment of cancer. *SPICA.* München med. Wochenschr. 9 3, lixiv, No. 34.

Treatment of wounds with material and mechanical means by Deslign's method. *HANSEN.* Wochenschr. 9 3, lixiv, No. 35.

Some dangers from hyaline of chloral. *T. D. CANNON.* M. d. Council, 9 3, xxiiv, 390.

The anatomical and chaul relations of the splanchnic nerves. *CHAMBERLAIN.* Arch. f. Laryngol. u. Rhinol. 9 3, xxiiv, 360.

Electrology

The physical principles involved in X-ray dosage. *COLUMBIA.* Strahlentherapie, 9 3, lixiv, 6.

The correct reading of color changes in X-ray dosage. *G. HUCK.* Strahlentherapie, 9 3, lixiv, 72.

The radiocroscope instrument for measuring exact X-ray dosage. T. NOOTER. *Strahlentherapie*. 9 3, 21, 155.

Secondary rays originating in the animal tissues. S. KISE. *Strahlentherapie*. 9 3 III, 306.

The radiograph in relation to the diagnosis and treatment of gastric and intestinal lesions. H. P. C. DE. *Atlanta J. Rec. Med.* 9 3, 12, 97.

The early use of the roentgen ray in the study of the auditory canal. W. D. CAMERON. *T. Am. Röntg. Soc.*, Boston, 9 3, Oct. [645]

Diagnostic mistakes occasioned by faulty X-ray pictures. E. B. EL VAK LUNA. *Zschr. f. Röntgenk.* 9 3, xv, 305.

The statistics of the X-ray examination for stone in the urinary tract. C. T. HILLARD. *T. Internat. Cong. Med. Lond.* 9 3, Aug. [649]

Stereo-roentgenographic determination of the position of foreign bodies. von HOFER. *Russk. Vrach. St. Petersburg*. 9 3, 21, 800.

New method of external application of radium. VALLET. *Progr. méd.*, Par. 9 3, xv, No 69.

Effect of radio-active substances and radiations upon normal and pathological tissues. W. S. LARSEN & BARLOW. *T. Internat. Cong. Med. Lond.* 9 3, Aug. [649]

Modern roentgen therapy. MAYER. *Deutsche med. Wchnschr.* 9 3, xxxix, No. 3.

Some remarks on radiotherapy. H. W. REYNOLDS. *So. African M. Rec.*, 9 3, xi, 247.

Progress of radium-therapy. SAUBERMAN. *Arch. Röntg. Ray* 9 3, xvii, 98.

Theoretical and practical contributions on roentgen-therapy. ERNST HOLZMANN. *Strahlentherapie* 9 3, iii, 779.

Radiotherapy in measured measure doses. L. W. J. Am. M. Ass., 9 3, lxi, 556. [650]

Theory and practice of radium and mesothorium treatment. A. BRONCKE. *Strahlentherapie*, 9 3, iii.

Radium in malignant disease. R. A. *Tr. Internat. Cong. Med., Lond.*, 9 3, Aug. [650]

Treatment by radiotherapy of some cases of sarcoma and malignant tumors diagnosed clinically. LARSEN. *Ges. heb. d. ac. méd. de Bordeaux*, 9 3, xxxi, No 34.

Experiences with radium treatment of malignant tumors. ALBERT ECKHART. *Wien klin. Wchnschr.* 9 3, xiv, 203.

X-ray treatment of malignant tumors and its combination with other methods of treatment. CROSTON. *Med. Rec.* *Strahlentherapie* 9 3, iii, 77.

The combined chemo- and radiotherapy of malignant tumors. LEVINSON. *Deutsche med. Wchnschr.* 9 3, xxxix, 30.

The influence of roentgen upon malignant tumors. MAX LEVY DORR. *Strahlentherapie* 9 3, iii.

Radiotherapeutic treatment of tumors. S. LÖWENTHAL. *Berl. klin. Wchnschr.* 9 3, i, 50.

The healing process of outcome coma under the influence of the roentgen rays. GEORGE E. FRANKLIN. *J. Am. M. Ass.*, lxi, 547.

Radiotherapy of carcinomata. P. LUTZ. *Berl. klin. Wchnschr.* 9 3, i, 304.

What can be done in cancer with roentgen rays? W. M. ALLEN PRACY. *J. Am. M. Ass.*, 9 3, lxi, 55. [650]

Treatment of cancer by radium. BAYER. *J. med. de Brux.* 9 3, xxxii, No. 32.

Mesothorium in the treatment of cancer in Germany. GUNTER. *Arch. d'électric. méd., Bordeaux*, 9 3, xvi, No. 363.

Technique of radiotherapy of cancer. DRUCK and VOGT. *München med. Wchnschr.* 9 3, ix, No. 3.

Effect of radiotherapy and intravenous chemotherapy on inoperable cancer of the uterus. SACHSMAUER. *München. med. Wchnschr.* 9 3, ix, No. 34.

Effect of radiotherapy and intravenous chemotherapy on inoperable uterine cancer. KLOTZ. *München. med. Wchnschr.* 9 3, ix, No. 3.

Deep radiotherapy. HENNING. *Strahlentherapie* 9 3, iii, N.

Röntgen technique of deep therapy. A. F. HOFMEIER. *T. Röntg. Ray Soc., Boston*, 9 3, Oct. [651]

Results obtained with deep radiotherapy. WITTEN. *Strahlentherapie* 9 3, iii, No. 2.

Results of treatment with X-rays. PETERSEN. *Zentralbl. f. Chir.* 9 3, xl, 1402.

Late injury of the skin and internal organs following X-ray treatment. H. E. SCHMIDT. *Deutsche med. Wchnschr.* 9 3, xxxix, 533.

Explanation of death caused by X-rays. P. FRANKFELT and H. MARX. *Arch. f. Kriminal-Anthropol. u. Kriminalmed.* 9 3, lv, 3.

Accidents from electricity. F. FISCHER. *Wien. klin. Wchnschr.* 9 3, xxi, 1450.

Clinical contributions on injuries by electricity. GOTT. *Arch. f. Chir.* 9 3, xiv, 966.

Heliotherapy. ANTON. *Montpellier med.*, 9 3, xxvii, No. 3.

Heliotherapy. GÖTT. *Deutsche Zschr. f. Chir.* 9 3, cxxvi, Nos. 5-6.

Remarks on the question of heliotherapeutics. G. A. G. *Deutsche Zschr. f. Chir.* 9 3, cxxvi, 608.

Military and Naval Surgery

Military surgery. GOTT. *Am. J. Surg.* 9 3, xxxv, 309.

The Red Cross notes on war surgery. ST. JACOB. *Srpak. arch. za crlik. lek. Beograd* 9 3, xix, No. 11.

The Red Cross notes on war surgery. BODEN. *Srpak. arch. za crlik. lek. Beograd* 9 3, xix, No. 34.

The limits of conservative treatment in military surgery. KLAPP. *Med. Klin., Berl.* 9 3, ix, 326.

Surgical observations at the military hospital at Hattum. FRIEDRICH. *Vierteljahrsschr. f. St. Petersburg* 9 3, cxxviii, No. 4.

Peritonitis from over-exertion and spontaneous fractures in the army. W. WOLFF. *Deutsche med. Wchnschr.* 9 3, xlii, 548. [651]

Experiences with the mustard bandage in the Serbian-Turkish war. STEINLE and VONDER. *Cor. Bl. f. Schweiz. Arzte* 9 3, xlii, 658. [651]

GYNECOLOGY

Uterus

Surgical anatomy of the pelvic uterus in the female of the human species. E. PARRY. Arch. mens. d'obst. et de gynec., 9 3, 8.

Are the uterus and its adnexa suspended or supported? JACOB. Gynaecologie Par. 9 3, xvii, No. 6.

The biological and biochemical function of the endometrium. KROOK CORN. Internat. Cong. Med., Lond. 9 3, Aug.

Carcinoma of the cervix of the uterus. KELL and NEEL. Bull. Johns Hopkins Hosp., 9 3, xxv, 3. [657]

Cure of carcinoma as result of bioscopic test carcinoma. STRATZ. Zentralbl. f. gynaek. 9 3, xxvii, No. 3.

Carcinoma of the uterus treated by the Percy cryostery method, with autopsy F. M. LOOMIS. Physician & Surg. 9 3, xxiv, 350.

Effect of roentgenium and X-rays on carcinoma of the uterus and ovaries. HARMONY Strahlenherapie 9 3, li, No. 2.

Results obtained with X-ray treatment of carcinoma of the uterus, ovaries and mammae. G. KLEIN. Deutsche Gesellschaft. f. Gynaek. Halle, 9 3, May. [657]

The histology of cancer of the uterus. LITZNER. Beitr. z. Geburtsh. u. Gynaek., 9 3, xvii, No. 3.

Cystoscopic examinations in cancer of the cervix of the uterus. HARTMANN. Par. med., 913 No. 323.

The results of amniocentesis treatment in cancer. A. PINKUS. Berl. klin. Wochenschr. 9 3, i, 65. [657]

Comparative study of methods of operation for cancer of the uterus and their results. OTT. Russk. Vrach, St. Petersburg, 9 3, xii, No. 32.

The treatment of uterine cancer in its very first stages. NEWCOMB. Zentralbl. f. Gynaek., 9 3, xxvii, No. 33.

Malignant degeneration of chorionic villi extending into the blood circulation contribution malignant chorio-epithelioma. NAGY. Arch. f. Gynaek. 9 3, c, No.

Endothelioma of the uterus of traumatic origin, causing complete rotation of the organ on its transverse axis. CURTIS and VANZANT. L'Echo med. du Nord Lille 9 3, xvi, No. 52.

A rare case of total sarcomatosis of the uterus. CORSTANTINI. Cha. chir. Milano 9 3, xii, No. 7.

The question of cystic degeneration of uterine myomata. E. GUMAKOFF. Ztschr. f. Geburtsh. u. Gynaek. 9 3, xxvii, 5. [653]

Mixed-cell myomata and myosarcomata of the uterus. RAAB. Arch. f. Gynaek. 9 3, N.

Experiences with the X-ray in the treatment of hemorrhagic metropathies and myomata. LACOE. Munchen. med. Wochenschr., 9 3, li, 742. [653]

Axial torsion of the myomatous uterus. POTZ. Zentralbl. f. Gynaek. 9 3, xxvii, No. 3.

Mesothelioma in the treatment of hemorrhagic metropathies and of myomata. A. PINKUS. Deutsche med. Wochenschr., 9 3, xxxv, 1041. [653]

The histopathology of the Fallopian tube in uterine sarcomatosis. MARQUET. Ann. d'obst. gynec. Milano, 9 3, xxv, No. 7.

Interstitial uterine fibroma and cancer of the cervix. JACOB. Bull. Soc. belge de gynec. et d'obst. 9 3, xlv, 779.

Hemorrhages of the menopause and cancer. ARNDT. Carott. Ohio St. M. J. 9 3, ix, 370.

Uterine scleroses and its connection with uterine hemorrhages. F. W. BERNHARDT. Arch. f. Gynaek., 9 3, xxi, 465. [654]

Chronic parametritis and displacements. ZIMMERMAN. Deutsche Gesellschaft. f. Gynaek., Halle, 9 3, May. [654]

The operative treatment of chronic inflammatory inflammations of the pelvic basin, with special consideration of posterior parametritis. FALLOUX. Gynaek. Rundschau, 9 3, vii, No. 5.

Med and mineral baths during menstruation. A. A. RUSAKOVA-SWONITZ. Ztschr. f. Geburtsh. u. Gynaek., 9 3, xxvii, 785. [654]

Partial muscular atrophy in myopathies. ROMS. Semaine med. Par., 9 3, xxxii, No. 21.

Leukoplakia uteri. THOMSON. F. W. BERNHARDT. Am. J. Obst. N. Y. 9 3, lixiv, 56. [654]

Reflex coughing and uterine displacement. clinical study. T. M. WEST. Va. M. Semi-Monthly, 9 3, xvi, 30.

Associated occurrence of uterovaginal prolapse hysterectomy and its indications. LITZNER. Gynecologie Par. 9 3, xvii, No. 6.

Emphysema or suspension of the uterus in hernia form as treatment of prolapse of the genitalia. DELAUNAY. Semaine gynec., Par. 9 3, 245.

Elimination of the danger of peritonitis in the operative treatment of rupture of the uterus and of perforating injuries of the uterus. WALTER SCHWARTZ. Arch. f. Gynaek. 9 3, c, 60.

The indications for and technique of debridement uteri. A. REICH. Francofurt. 9 3, xxviii, 242. [654]

Adnexal and Peritoneal Conditions

Guard ovary. S. POORE and ROCKEY. Bull. et mem. Soc. anat. de Par., 9 3, lxxvii, 369.

Internal secretion of ovaries and its relation to the lymphocytes. F. HEDMANN. Ztschr. f. Geburtsh. u. Gynaek., 9 3, lixi, 533. [655]

A clinical and anatomical pathological contribution to the study of hemorrhages of ovarian origin. BERTHO. Gynecologia, Milano, 9 3, x, No. 4.

Sarcoma developing from teratoma of the ovary with metastases in the great omentum. H. KLOOS. Zentralbl. f. allg. Pathol. u. pathol. Ana. 9 3, xxv, 432. [655]

Ovarian teratoma. CHARLES S. ADLEY WHITE. Am. J. Obst. N. Y. 9 3, lixiv, 56.

Carcinomatous degeneration of ovarian cysts. GLEBOV. STROGONOFF. Russk. Vrach, St. Petersburg, 9 3, xii, 604. [656]

Supportive demand cyst of the left ovary as complication of puerperium. BERTHO. Gynecologia, Milano, 9 3, x, No. 5.

The disadvantages of the conservative surgery of ovarian cyst. SCHOLZ. Arch. mens. d'obst. et de gynec., 9 3, ii, 318.

Experimentally obtained results of radio-actin treatment of the ovaries. LACAMACCH. Ann. de gynec. et d'obst. Par., 9 3, x, Aug.

The removal of blood from the peritoneal cavity following rupture of the tube. BAUDOU. Monatschr. f. Geburtsh. u. Gynaek., 9 3, xxvii, 714. [655]

Chorio-epithelioma of the tube. ALPHONSE HODGUES and LORRAINE. Bull. et mem. Soc. anat. de Par. 9 3, lxxvii, 343.

- Three cases of tuberculous of the adnexa. *DR ROCHE*. Montpellier med., 9 3 xxvii, No. 30.
- The conservative surgical therapeutic procedure in the treatment of tuberculous of the adnexa. *P. DEL* and *CHURCH*. Rev. de gynéc. et de chir. abdom. Par. 9 3 xii, No.
- Mycosis of the adnexa, inflammations and tubal pregnancy. *W. HANSEN*. Ergebn. d. Chir. u. Orthop., 1913, vi, 609. [655]
- Fibrosarcoma of the broad ligament. *ALFIERI*. Gynecologia, Milano 9 3 x, No. 3.
- One hundred cases of ventrofixation of the round ligaments after my own method and 100 operations after the method of Alexander Adams with sutures buried as matter of principle and without undue recurrence. *RUMSTADT*. Ztschr. f. Geburtsh. Gynak. 9 3 lxviii No. 3.

External Genitalia

- Vaginal injections. *P. DE DANCHE*. Rev. prat. d. med. d. organ. photo-phys. 9 3, x, 75.
- Vaginal bacteria and endogenous infection. *O. BRODZKY*. Ztschr. f. Geburtsh. Gynak. 9 3 lxviii 604. [656]
- A case of primary cancer of the vagina associated with leucoplakia. *LABARTHE*. Ztschr. f. Geburtsh. Gynak. 9 3 lxix, No. 3.
- Cysts of the vagina. *B. ALV. SABERK*. A. ch. Guss. 1913, vi, No. 1.
- Radical treatment of agnath hydrocele by the marginal path of access. *GONZALEZ*. Lyon chir. 9 3, N.
- Vaccine therapy in the treatment of urethritis. *W. R. JACK*. Glasgow M. J. 9 3 lxix, 84. [656]
- The iodine treatment of gonorrhea in the female. *O. BORMANN*. Internat. M. J. 9 3, xx, 735. [657]
- Prolaps of the mucous membrane of the urethra in girls (meteoscopical mucous urethra). *M. C. KISCHNITZ*. Russk. Vrach, St. Petersburg 9 3 xxi, 38.
- Lesions of the perineum: prevention and treatment. *H. L. PIERCE*. Ellingwood Therapeutics 9 3, vi, 267.

Miscellaneous

- Address in gynecology. *THOMAS S. CULLEN*. Canad. M. Ass. J. 79 3 li, 638. [657]
- Points and pitfalls in gynecological diagnosis. *JOHN BERNARD HILLMAN*. Practitioner Lond. 9 3 xxi, 57.
- Present status of radiotherapy in gynecology. *LYON*. Ztschr. f. Strahlentherapie, 9 3 vi, N.
- Radiotherapy in gynecology. *GEORGE E. FRANKEL*. T. Am. Röntg. Ray Soc., Boston 9 3, Oct., [657]
- Radiotherapy in gynecology. *KISCHNITZ*. Gynak. Rundschau, 9 3 vii, No. 5.

- Mesothorium in gynecology. *STEWART* and *HARDY*. Med. Klin., Berl., 9 3 li, No. 35.
- Technique of gynecological mesothorium treatment. *GAYNE*. Strahlentherapie, 9 3 li, No. 2.
- Mesothorium treatment of genital cancer. *JUNO*. Strahlentherapie, 9 3 li, No.
- Effect of roentgen and mesothorium rays on tumors of the genital organs. *KROEMER*. Strahlentherapie, 9 3 vi, No.
- The cystoscopic diagnosis of ureteral calculus and its removal by the vaginal route. *F. HENNING*. Ztschr. f. Geburtsh. Gynak., 9 3, lxviii, 441. [657]
- A case of acute retention of the urine in gynatresia. *H. LOWENSTERN*. Ztschr. f. Urol., 9 3 vii, 630.
- Congenital anomalies in the urinary apparatus in women. *M. POKRISWITZ*. Praegf. f. gynec., Weibawa, 9 3 viii, 543.
- External female pseudohermaphroditism. *KISCHNITZ*. Ztschr. f. Geburtsh. Gynak. 9 3 lxix, No. 3.
- The modern diagnosis and treatment of gynecological and obstetrical patients with syphilis. *J. B. SQUINA*. N. Y. M. J. 9 3 lxviii, 357. [658]
- Bacteriological control of sepsis during gynecological laparotomies. *W. STEWART*. Arch. f. Gynak., 9 3 lxix, 234. [658]
- Relations between affections of the veins and the female genitalia. *RUD. TH. JASCHKE*. Zentralbl. f. d. Gynäk. d. Med. Chir. 9 3 xvi, 5.
- Relations of inflammatory conditions of the colon to the female genitalia and to functional neuroses. *E. OERTZ*. Ztschr. f. Geburtsh. u. Gynak. 9 3, lxviii, 368.
- The surgical treatment of pelvic thrombosis of septic origin. *HENRI JELLET*. Surg. Gynec. & Obst., 9 3, xi, 47. [658]
- Associated occurrence of tubercular and neoplastic genitalia. *PARONDI*. Ann. di ostet. gynec., Milano, 9 3 lxix, No. 7.
- Basaloid disease and genital organs. *LAMPE*. Deutsche Gesellschaft f. Gynak., Halle, 9 3, May. [659]
- The changes in the blood during menstruation. *V. C. TON*. Arch. f. Gynak. 9 3 lxix, 54.
- Precocious menstruation. *GEORGEFRANCE*. J. Am. M. Ass. 9 3 li, 605. [659]
- The demonstration of menstrual blood by the glyco-genodin reaction. *P. DYERKORF*. Ztschr. f. Med. Beamt., Berl. 9 3, xxvi, 452.
- Pneumate phenomena: hyperemia and hemorrhages of the female genitalia following subcutaneous injection of ovarian or placental extract. *BERNARD ASCHNER*. Arch. f. Gynak. 9 3, lxix, 334.
- The drop method for the injection of saline solutions into the rectum in gynecology. *KOSKOV-OSTROVA*. J. russk. jensk. bolez. St. Petersburg 9 3 lxviii, Nos. 7-8.

OBSTETRICS

Pregnancy and Its Complications

- The elastic area in the anthesis of the uterus: positive and early sign of uterine pregnancy. *LOUIS J. LAMBERT*. Am. J. Obst., N. Y. 1913, lxviii, 6. [660]
- The determination of the duration of pregnancy on the basis of histological placental findings and the possible practical utility of these findings. A reply to Peters

- article of the same title. *J. SCHOTTLANDER*. Zentralbl. f. Gynak., 9 3, lxviii, 806. [660]
- Nitrogen metabolism during pregnancy. *S. A. GARDNER*. Scandina. Arch. f. Physiol., 9 3, lxviii, 335. [660]
- The cholesterol content of the bile during pregnancy. *J. W. MCNEIL*. Deutsche med. Wochenschr. 1913, xxxix, 994. [660]

A case of partial retroflexion of the pregnant uterus. *Forro. Zentralbl. f. Gynäk.* 9 3, xxvii, No. 34.

Uterine myomata complicating pregnancy. W. T. *ORIGINAL. Australas. M. Gaz.* 9 3, xxiv, 22.

Uterine fibroids and pregnancy. W. TREITOWAN. *Australas. M. Gaz.* 9 3, xxiv, 9.

The pernicious vomiting of pregnancy. R. A. KIDMAN. *Am. Med.* 9 3, vii, 519. [660]

Maternal toxemia complicating pregnancy. S. E. MASON. *Illinois M. J.* 9 3, xxiv, 14.

Patient ductus arteriosus, report of case complicated by pregnancy. LEO BROOKS ROSENTHAL. *Am. J. Obst.* N. Y. 10 3, lxvi, 32. [661]

Frequency and significance of cardiac disease during pregnancy. PAUL OW. *Deutsche Gesellschaft. f. Gynäk. Halle.* 9 3, May. [662]

Addison's disease and pregnancy. VOOR. *München. med. Wochenschr.* 9 3, lx, No. 33.

Cystic kidneys and pregnancy. F. HENNING. *Zisch. f. Geburtsh. Gynäk.* 9 3, lxviii, 490.

Pyelonephritis in pregnancy. CRAWFORD. *J. d. Prat.* Par. 9 3, xxviii, No. 34.

Hemorrhages in pregnancy. D. VERHE. *Année méd.* Cera. 9 3, xxviii, 273.

The surgical treatment of bacillus coli communis infection complicating pregnancy with report of cases. E. P. D. VII. *T. Internat. Cong. Med. Lond.* 9 3, Aug. [663]

Ectopic pregnancy in the ovarian ligament, contribution to the anatomical diagnosis of advanced cases. E. DORCHEN. *Monatsschr. f. Geburtsh. u. Gynäk.* 9 3, xxviii, 740. [664]

Clinical data on extra-uterine pregnancy. GABRIELOVA-BODILOVA. *J. akrob. i. jensk. bolniz.* St. Petersburg, 9 3, xxviii, Nos. 7-8.

Extra-uterine pregnancy. R. C. FRAYER. *V. M. Sem. Month.* 9 3, xxviii, 20.

Treatment of extra-uterine gravidity. E. FALK. *Arch. f. Gynäk.* 9 3, xcix, 634.

Tubal or extra-uterine pregnancy. J. HUGH CARTER. *South M. J.* 9 3, vi, 52.

Tubal pregnancy. HARTMAN. *Nord. med. Arch. Stockholm.* 9 3, xlvii (Chr. F.).

Diagnosis of pregnancy developed in rudimentary horn of the uterus. B. OWO. *J. akrob. i. jensk. bolniz.* St. Petersburg, 9 3, xxviii, Nos. 7-8.

The diagnosis and treatment of ectoplasia. G. W. KOSMAN. *Merrill Arch.* 9 3, xv, 443.

The indications for abdominal Cesarean section. RUSSELL PATTERSON. *Surg. Gynec. & Obst.* 9 3, xviii, 194. [665]

Statistics on supra-symphysal trans-peritoneal Cesarean section. G. ROHCAGLI. *Ann. di ostet. ginec.* 9 3, xxv, 306.

The present technique of abdominal Cesarean section in France. JEANRE. *Progr. méd.* Par. 9 3, xxi, No. 65.

Cesarean section with hysterectomy in cases of postinfection. J. F. BALDWIN. *N. Y. M. J.* 9 3, xxviii, 372. [666]

Two unusual cases of ectopic pregnancy one triplet. J. F. BALDWIN. *J. Am. M. Ass.* 9 3, lxi, 391. [667]

Early misdiagnosis. WALLACE. *Rev. de gynec. et de obst.* Par. 10 3, xxi, No. 1.

Bacteriological examination in the treatment of abortion. A. SCHREIER. *Onkol. Berl. Budapest.* 9 3, lvi, 337.

The artificial interruption of pregnancy and sterilization in one session by the abdominal route. H. SCHLIMMER. *Monatsschr. f. Geburtsh. Gynäk.* 9 3, xxviii, 166.

Labor and Its Complications

Present views on the management of normal labor. CHARLES F. DEXTER. *St. Paul M. J.* 9 3, xv, 34.

Difficult labor. H. C. CLARK. *Ky. M. J.* 9 3, xi, 740.

Prolonged precipitate parturition due to displacement of the disproportioned head. A. E. GALLANT. *Med. Rec.* 9 3, lxxvii, 33.

A case of complete spontaneous rupture of the uterus at the moment of delivery. PIERRE VLOVSKY. *Woch. Ges. St. Petersburg.* 9 3, xi, No. 30.

Uterine rupture following the use of pituitrin. KURT MITCHELL. *med. Wochenschr.* 10 3, lvi, 32.

Delivery in total paralysis of the body. M. BOGDANOWICZ. *Zentralbl. f. Gynäk.* 1913, xxviii, 809. [668]

Subcutaneous symphyseotomy. Dr. BOVY. *Semane med. Par.* 9 3, xxviii, No. 33.

Puerperium and Its Complications

A case of puerperal tetanus. Its recovery. WILHELM MONATSKY. *f. Geburtsh. u. Gynäk.* 9 3, xxviii, 672. [669]

A case of puerperal sepsis cured by operation. BENZ. *München. med. Wochenschr.* 9 3, lx, 375.

An unusual case of extension necrosis of the puerperal uterus. A. VON REUSCH. *Cor. Bl. f. Schwed. Arzte.* 10 3, xix, 651.

Emptying the uterus as a method of treatment of postpartal eclampsia. RUSSELL PATTERSON. *Am. J. Obst.* N. Y. 9 3, lxviii, 301.

The medical versus the surgical treatment of postpartal eclampsia. E. G. ZIMMER. *N. Y. St. J. M.* 9 3, xii, 472. [670]

On the management of the exterior of the uterus in post-abortion and post-partal infection. J. POLAK. *T. Internat. Cong. Med., Lond.* 9 3, Aug. [671]

Puerperal pyrexia post-partum. C. S. COLE. *Monatsschr. f. Geburtsh. u. Gynäk.* 9 3, xxviii, 61. [672]

Miscellaneous

Beriberi in infancy. Poisoning of the nursing by the milk of mother affected with beriberi. Based on the work of American physicians in the Philippines. KANAKURA. *Alte med. Zentralbl.* 9 3, lxxviii, 404.

A study of stillbirths. L. W. THOMAS. *N. Y. M. J.* 9 3, xxviii, 43.

Fetal hormones. B. WOLFF. *Habilitationsschrift.* Rostock. 9 3. [673]

The use of fetal serum to cause the onset of labor. A. F. ROCHER. *M. S. J. Calcutta.* 9 3, xi, 40.

Ultra-uterine rupture of the fetal liver. DORTCH. *Monatsschr. f. Geburtsh. u. Gynäk.* 10 3, xxviii, 803. [674]

Organic specificity of the pregnancy ferments in relation to the placenta. G. FLORENZ. *München. med. Wochenschr.* 9 3, lx, 944.

On some placenta cells derived from the human placenta. C. SALAZAR. *Hochsch. Zisch.* 9 3, lvi, 1.

Diagnosis of retro-placental hemorrhage. BOSSERT. *Laboratoire.* J. d. ac. méd. de Lille, 9 3, xxviii, No. 30.

Cure of the umbilical stump. FIELD L. ADLER. *J. Am. M. Ass.* 9 3, lxi, 337. [675]

Several cases of S. SCHLIMMER. *Deutsche Gesellschaft. f. Gynäk. Halle.* 9 3, May.

The relations between menstruation and nursing the child. D. TROSC. *Rassegna d'obstet. ginec. Napoli.* 10 3, xix, 29.

The cure of the nipple during pregnancy. KATZMAN. *Monatsschr. f. Geburtsh. Gynäk.* 9 3, xxviii, 807. [676]

The clinical significance of the urine in pregnancy
BARON C. BAILEY. *Am. J. Obst., N. Y.* 9 3 livid 5.
[667]

The influence of the thyroid glands on pregnancy and
lactation. W. M. THOMPSON. *Surg. Gynec. & Obst.*
1913, viii, 5.
[667]

The biological diagnosis of pregnancy. POLAK
Moseshe. *I. Geburth. u. Gynak.* 9 3 xxxvii, 857.
[667]

The serodiagnosis of pregnancy. HIRSHY SCHWARTZ
J. Am. M. Ass. 9 3, lvi, 484.
[667]

Can Abderhalden dialization method be used in
differential diagnosis? E. SCHIFF. *Deutsche Gesellschaft.*
I. Gynak., Halle. 9 3, M. Y.
[667]

The applicability of Abderhalden reaction for the
serum diagnosis of pregnancy. F. MACCARINI. *Münch.*
med. Wchnsch. 9 3 lv, 59.
[668]

Diagnostic value of Abderhalden serum reaction
RECH. *München. med. Wchnsch.* 9 3 N. 3.
[668]

Clinical observations on Abderhalden reaction
JA. OEST. *Gynak. Rundschau.* 9 3 vii, No. 5.
[668]

The therapeutic use of the normal serum of pregnancy
A. MAYER. *München. med. Wchnsch.* 9 3, 4.
[668]

Parathyroid in obstetrics. JEWELL C. LITTE. *ALBO*
S. Phil. M. J. 9 3 xv, 309.
[668]

A case of rupture of the uterus following the adminis-
tration of pituitrin. E. HARR. *Zentralbl. f. Gynak.* 9 3,
xxxvii, 720.
[668]

Incidence with pituitrin in obstetrics. A. FUCHS.
Zentralbl. f. Geburth. u. Gynak. 9 3, lxxii, 57.
[668]

The modification of the hemoglobin catalyst during
pregnancy. ROBERT ENGELHORN. *München. med. Wchnsch.*
9 3, lv, 95.
[668]

The relation of the cervix to sterility and pregnancy
M. F. GOLDBRGER. *Internat. J. Surg.* 9 3 xxvi, 269.
[668]

Gonorrhea in relation to pregnancy and the puerperal
period. A. S. JARVIS. *J. Indiana St. M. Ass.* 9 3 vi,
35.
[668]

A retrospect of 5 obstetrical cases. J. B. CARMICHAEL.
South M. J. 9 3 vi, 543.
[668]

Experiences in private obstetrical practice extending
over 5 years. HENRY J. KIRCHMANN. *München. med. Wchnsch.*
I. Geburth. u. Gynak. 9 3 xxxviii, 260.
[668]

A review of obstetrical literature of the third quarter of
the year 9 3. K. FRANKENSTEIN. *Fortachr. d. Med.*,
9 3 xxxi, 958.
[668]

Radical and conservative management of some ob-
stetrical problems. ROWEN D. McWILLIAM. *Hosp. Bull.*
Los. M. J. 9 3 ix, 60.
[668]

GENITO-URINARY SURGERY

Kidney and Ureter

The pathology of the suprarenal capsule. KONRAD
HILLY. *München. med. Wchnsch.* 9 3 lv, 8.
[669]

Associated occurrence of heterotopic bone marrow and
absent tissue of the suprarenal capsule. ALDO BOLAFFI.
Arch. per le sc. med., Torino. 9 3, xxxiv, 42.
[669]

Tumors of the medulla of the suprarenal glands, partic-
ularly sympathetic neuroblastoma. HERRMANN. *Beitr.*
path. Anat. u. allg. Path. 9 3, lvi, No.
[669]

Physiology of kidney secretion. O. CORRENT. *Sitz-*
ber. d. Heidelb. Akad. d. Wissensch. M. th.-naturw.
Kl. 9 3 vi, 1.
[669]

Radiographic examination of the kidneys. S. P.
GOSWAMI. *Verhandl. d. XII. Kong. russ. Chir.* 9 3,
22, 72.
[669]

Clinical observations on the influence of the nerves on
the secretion of the kidneys. GRABER. *Deutsche Zsch.*
f. Nervenh. 9 3 xlvi-xlviii, 70.
[669]

Anatomical changes in the kidney after ligation of the
ureter. M. KAWASOYE. *Ztschr. f. Gynak. Urol.* 9 3 iv,
107.
[669]

Experimental data on the influence of the injured kid-
ney on the opposite kidney. ISHIO. *M. d. Gernat.*
d. Med. u. Chir. 9 3 xvi, No.
[669]

The pathology and treatment of nephrolithiasis. WIL-
HELM KASANO. *Med. Klin., Berl.* 9 3 vi, 25.
[669]

Renal calculus in relation to the kidney and ureter
STEPHEN E. TRACY. *Am. J. Obst. N. Y.* 9 3, livid, 201.
[669]

Operation of choice in renal calculus. LEUBER. *Clini-*
cal Par. 9 3, vii, No. 3.
[669]

Movable kidney. C. MACLAURIN. *Australia M. Gaz.*
19 3, xxxv, 9.
[669]

Bacteriology of the urine in relation to movable kidney.
D. W. HADLEY. *Cal. St. J. Med.* 9 3, xl, 370.
[669]

Congenital movable kidney. CATHLEY. *Paris med.*
9 3 N. 37.
[669]

Operation for floating kidney. K. VOGEL. *Verhandl.*
d. Gesellschaft deutscher Naturforsch. u. Ärzte. 9 3
b part 56.
[669]

Supernumerary kidneys. SUMER. *Polia urol., Leipz.*
9 3, vii, No.
[669]

Two congenital renal anomalies. VAN RESELIK.
Zentralbl. f. Chir. 9 3, l, 296.
[669]

Essential hematuria, with report of a case cured by
injection of adrenalin through the ureteral catheter.
HARVEY MOORE. *Urol. & Cutan. Rev.* 19 3 xvi, 97.
[669]

A unusual case of renal hematuria; unilateral chronic
hemorrhagic nephritis; decapsulation, permanent cure
recurrence bilateral involvement decapsulation of both
kidneys six years later. W. G. VINCENT. *Med. Rec.*,
9 3 lxxvii, 66.
[670]

On the value of renal hematuria immediately follow-
ing nephrectomy for tuberculosis. M. PEXA. *J. d'Urol.*
9 3 iv, 45.
[670]

Unilateral hematuria in nephritis. STRAUSS. *Zen-*
tralbl. f. Chir. 9 3 xl, 297.
[670]

Fibrous detritus in the renal pelvis. N. W. PATROW.
Zentralbl. f. allg. Path. u. path. Anat. 9 3 xxiv, 633.
[670]

Tumor of the left kidney. KIRKMAN. *Clinique*
Par. 9 3 vii, No. 3.
[670]

Three unusual cases of renal tumor with discussion
of the operative treatment of the condition. J. S. IRT.
Jot. Practitioner Lond. xli, 179.
[670]

Suppurated polycystic renal tumor associated with
marked intra-cystic hemorrhage. Removal of the same
in woman in very weak and anemic state under local
anesthesia rapid recovery. LE FILLIERS. *Bull. et*
memo Soc. Chir. Par. 9 3 lxxvii, 380.
[670]

Case of congenital cystic kidney. SERVAZ. *Arch. intern.*
Chir. 9 3, xxxv, 345.
[670]

Functional diagnosis of kidney disease. G. W. Mc CASKEY. *Lancet-Clin.*, 1933, cx, 164.

The amount of work done by diseased kidneys. Experimental researches. ST. GIERMA and G. KILBARY. *Biochem. Ztschr.*, 1913, III, 41.

The question of ascending infection of the kidney and the prevention of the same in implantation of the ureter into the bowel. A. J. LUTIN. Dissertation. St. Petersburg, 1931. [676]

Unilateral pyelitis infection of the kidneys. A. P. COV DOM. N. Y. M. J. 1932, xviii, 272. [676]

Purulent pyelitis. LEONARD D. FRIEDBERG. *Urol. & C. An. Rev.* 93, xvi, 45.

Unilateral pyelitis chronic pyelitis. TOCHET. *Folia urol. Leipz.*, 1913, vii, No. 1.

Pyelitis chronic pyelitis. LE CLERIC DANDOT. *J. med. de Brux.*, 1932, xxi, No. 3.

Thirty-four cases of chronic pyelitis treated operatively since 1901. The Russian Cong. Verhandl. d. Nord. chir. Forenng., Kjöbenhavn, 1932.

Treatment of pyelitis. C. A. WILLIAMS. *Mahmoud. Month.*, 1932, xiv, 569.

Perforating abscess. STUBBART. *Low. M. J.* 1932, xi, 75.

Cases of post-operative abscess peritonitis. A. B. UZZ KIN. *Ztschr. f. gynäk., Urol.*, 1932, iv, 24.

Renal tuberculosis. RIVERA y MORAT. *Rev. de med. y chir. prat.*, Madrid, 1932, xxxvii, No. 277.

Diagnosis of renal tuberculosis. POTANE. *Argent. med. Buenos Aires*, 1913, xi, No. 3.

Diagnosis and treatment of tuberculosis of the kidney. P. COHEN. *Bull. med.*, Par. 93, xxvii, No. 63.

Localization of renal tuberculosis by radiography. FARM. *Arch. urol. clin. de Necker*, 1932, 97. [671]

Tuberculosis of the kidney and bladder including uterine tuberculosis. RUTHERFORD. *Med. Wchnsch.* 1932, ix, 459.

Radiography in renal tuberculosis. LEGER. *Chaque Par.* 1932, vii, No. 33.

A clinical lecture on tuberculosis of the urinary tract. J. HOWELL. *Br. J. Urol.*, Lond. 1932, xiv, 273.

Infection of the urinary tract in children by the colon bacillus. J. THOMSON. *Lancet Lond.* 1932, xlviii, 267. [671]

Adrenal hyperplasia in the adult female associated with male secondary characters. E. GARDNER and J. T. HARRISON. *J. Pathol. and Bacteriol.*, 1932, xlvii, N. [672]

Pyelography. L. JACOB. *T. Am. Röntg. Ray Soc.* Boston, 1913, Cxi.

The technique and accuracy of pyelography. LIGON and PARR. *Arch. urol. clin. de Necker*, 1932, 97. [672]

Kidney surgery. H. H. JONES. *Prag. med. Wchnsch.* 1932, xlviii, 907.

General clinical aspects of surgical kidney. CATELLIV. *Prog. med. Par.* 1932, xiv, No. 51.

Experiences in renal surgery. G. von ILVIG. *Dtsch. wchnsch.* Frankfurt, 1932.

Pyelotomy. OLIVER. *Ztschr. f. Urol.*, 1932, vi, 135.

Technique of nephro-pyelo- and ureterolysis. JOURN. H. GIBSON. *Ann. Surg. Med.*, 1932, viii, 1. [672]

Nephropathy by means of free transplantation of bands of fascia. COHEN. *Zentralbl. f. Chir.*, 1932, xli, No. 32.

Renal transplantations. VILLARD and PERRIN. *Lyon chir.* 1932, x, No. 2.

The present status of renal functional tests with special reference to phenolsulphonphthalein. FROST and SOUTHWELL. *Albany Med. Ann.* 1932, xxxv, 443.

The phenolsulphonphthalein test (Abel and Row-

tree's test). G. MONTAGNAN. *Lyon med.*, 1932, cxii, 297.

Functional diagnosis of renal affections. JAKOWICZ. *Russk. Wchnsch.* St. Petersburg, 1932, xli, 269.

Experimental studies of the diagnosis of kidney function. W. M. BRAUNER. *Verhandl. d. XII Kong. nam. Chir.* 1932, xli, 67.

Contributions to the functional diagnosis of the kidney. R. BROMBERG. *Bell. s. klin. Chir.*, 1932, lxxv, 4. [671]

The difference between the secretion and the retention of coloring matter in the kidney. GEORGE BLUM. *Zentralbl. f. allg. Path. u. path. Anat.*, 1932, xlv, 63.

Calculus anuria. HARTIG. *Spitalw.* Bismarck, 1913, xxi, No. 9.

Hydrocephalus produced by experimental arterial obstruction. G. D. SCOTT. *J. Indiana St. M. Ass.*, 1914, vi, 339. [671]

Concave ureterocystitis, right ureterocystitis, nephrotomy left pyonephrosis, posterior pyelotomy, late secondary pyelitis. Recovery. DOGLAWE. *Folia urol. Leipz.*, 1932, vii, No. 1.

A ureterocystoscope arranged for ready exchange of the catheters, with contribution to aseptic of ureteral catheterization. VOZZI. *Ztschr. f. Urol.* 1932, x, N. 2.

Fixation of the ureters for the large intestine. L. LIGON. *Gazz. d. op. d. clin. Milano*, 1932, xlv, 243.

Bladder Urethra and Penis

A case of traumatic intraperitoneal rupture of the bladder. BARSAGLIA. *Chirurgia*, St. Petersburg, 1913, xxi, No. 103.

Study of vesical calculus. OLIVER, SOOZA and O. MONTAGNAN. *Med. moderna*, 1932, xi, 209.

Modern tendencies in the treatment of vesical calculus. LIGON. *Prag. med. Wchnsch.*, 1932, xlviii, No. 7.

Modern conception of treatment of vesical calculus. CATELLIV. *J. d. Pra. Par.* 1932, xiv, No. 51.

The surgical treatment of bladder-stones in children. TRAILLERY. *Chirurgia*, St. Petersburg, 1932, xxi, No. 93.

Foreign bodies in the bladder and their treatment. LIGON. *Allg. wchnsch. Ztg.* 1932, lxvii, 76. [671]

A calculus in the bladder. LIGON. *Rev. prat. d. med. d. op. ginec. urol.*, 1932, x, 203.

The relief of vesical obstruction in selected cases. H. G. BURNER. *N. Y. St. J. M.* 1932, lxxv, 4. [671]

Bladder deformity after vesico-vaginal fistula. VAN HOOK. *Urol. & Gynecology Rev.* 1932, xvi, 47.

Electro-coagulation of tumors of the bladder. LIGON. *Arch. urol. clin. de Necker*, 1932, 97, 13. [671]

The radioactive treatment of tumors of the bladder. L. CATELLIV. *Ztschr. f. Urol.*, 1932, vii, 200.

In-resection treatment of papilloma of the bladder by electrolysis. R. OBERMEYER. *Ztschr. f. Urol.* 1932, vi, 72.

A case of marked secondary haemorrhage following operation for papilloma of the bladder by high-frequency current. C. SCHWARTZ. *Ztschr. f. Urol.* 1932, vi, 63.

A case of leiomyoma of the bladder. AXEL LIGON. *Hosp.-Tid. Kjöbenhavn*, 1913, lvi, 837.

The etiology and treatment of cystitis in women. F. G. GARDNER. *Merck Arch.* 1932, xv, 226.

Transformation of cystic into glandular cystitis. J. FRANKSON. *J. d'Urol.* 1913, iv, 207. [671]

Syphilis of the bladder. A. DUTTER. *Dermatol. Ztschr.* 1913, xxi, 477.

Operative treatment of diseases of the neck of the bladder and the posterior urethra. E. WOSNICKO. Berl. klin. Wchnsch., 19 3, 1, 570.

Endovenal and endourethral treatment by high-frequency currents. ROBERT BACKERACK. Folia urol. Lpz., 10 3, vii, 685.

Epididymotomy with empty bladder. LASTARIA. Arch. ital. di ginec., Napoli, 9 3 xvi, No. 7.

Total cystectomy for multiple or infiltrated neoplasms of the bladder. P. HANSEN. J. d'urolog., 9 3, iv, 69.

General findings relative to operative cystoscopy. LEO KROCH. Ztschr. f. urol. Chir., 9 3 i, 419.

Cystoscopy and urethral catheterization. MOORE. Can. Med., 9 3, xi, 663.

Topography of the bladder with special reference to cystoscopy. V. C. PRINCE. N. Y. M. J., 9 3 xcvi, 113.

Angioma of the urethra as cause of grave hemorrhages. A. WOLFF. Wien. klin. Wchnsch., 9 3 xcvi, 104.

Posterior urethroscopy by Goldschmidt's method. PRINCE. Hosp.-Tid., Kjöbenhavn., 9 3, lvi, N. 17.

Internal urethrotomy. R. FROSTENBERG. Vrach. Gaz. St. Petersburg, 19 3, xx, 975.

Plastic surgery of the male urethra. KLOTZKY-HARFF. Chirurgia, St. Petersburg, 9 3, xxxiii, N. 93.

Multiple myoma of the penis. A. CHAMBERLAIN. Can. Med., 9 3, xi, 663.

Tuberculosis of the penis. J. LEWIS. Derm. Ztschr., 9 3, xi, 601.

The treatment of gonorrhea in the male. D. O. 1. MIZEL. Indianapolis M. J., 9 3 xvi, 3.

Genital Organs

Disturbances of the development of the testicles. LITTON. J. urol. Zentrbl. f. allg. Path. path. Anat., 9 3, xiv, 433.

Treatment of cryptorchidism. HANUMA. Zen. allg. f. Chir., 9 3, xi, 47.

Neuritis of the testicle from torsion of the vas deferens and observations. VINCIGUERRA. Gaz. d. osp. d. Clin. Milano, 9 3, xxxiv, No. 60.

Radical cure of malignant tumors of the testicle by extirpation of the juxta-aortic glands. MARABOLI. N. R. med., Napoli, 9 3, xix, Nos. 33-34.

Tuberculosis of the testicle and hematuria. H. N. K. MORROW. Med. Times, 9 3, xii, 3.

Traumatic tuberculosis of the testicles, its interpretation and treatment in respect to medicine and surgery. O. RÖDER. Ztschr. f. Venereerkranke, 9 3, vi, 6.

Surgical treatment of ectopy of the testicles. BAR. V. POLICHI. Rome, 9 3, xxi, ch. xi, N. 8.

The question of reproductive potency in testicular of the epididymis. F. THOMAS. Deutsche med. Wchnsch., 19 3, xxi, 393.

Acute non-gonorrheal orchitis and epididymitis with special consideration of bacteriological examination. H. STROVER. Deutsche med. Wchnsch., 9 3, xxi, 35.

The treatment of gonorrheal complications, especially gonorrheal epididymitis, by electropathy. J. LITS. FORTIS. Derm. Wchnsch., 9 3, lvi, 680.

Epididymotomy. The radical operative treatment of epididymitis. LAUREN. S. DUBOIS. J. Am. M. Ass., 19 3, in 470.

Connective tissue cyst of the vas deferens. PAOLO FANT. Deutsch. med. Wchnsch., 9 3, xxi, 45.

The pathogenesis of hydrocoele. ZIEGLER. Zentrbl. f. Chir., 9 3, xi, No. 33.

Hydrocoele and hematocele. OLIVIERI. Prog. med. Per., 9 3, xiv, N. 33.

The operation of hydrocoele. MÜLLER. Zentrbl. f. Chir., 9 3, xi, 420.

Operation on the seminal vesicles. F. VOLCKNER. Arch. f. klin. Chir., 9 3, xi, 683.

The remote effects of lesions of the prostate and deep urethra. THOMAS MCCRAE. J. Am. M. Ass., 9 3, li, 477.

Diagnosis and treatment of early malignant disease of the prostate. H. KIMMELL. T. Internat. Cong. Med. Lond., 9 3, Aug.

A case of pyelitis of the prostate gland. MAX HILME. Derm. Wchnsch., 9 3, lvi, 683.

Four cases of trophy of the prostate gland. VACON. Cas. Ztschr. f. Urol., 9 3, vii, 63.

Present status of therapy in hypertrophy of the prostate gland. E. GRUNERT. Ztschr. f. urol. Chir., 9 3, i, 395.

Modifications of the theory of hypertrophy of the prostate. KIMMELT. München. med. Wchnsch., 9 3, li, 707.

What value is to be ascribed to Böttcher's operation in the treatment of hypertrophy of the prostate gland. ECKHART. Ztschr. f. urol. Chir., 9 3, i, 387.

Prostatectomy. JOHN B. DEVEREUX. Surg. Gynec. & Obst., 9 3, viii, 37.

Prostatectomy. CENDRO. Gazz. d. osp. d. Clin. Milano, 9 3, xxxiv, N. 60.

Suprapubic prostatectomy. HUGHES. Surg. Gynec. & Obst., 9 3, xi, 3.

Suprapubic prostatectomy by Morcellement. D. W. BURNHAM. Urol. & C. tan. Rev., 9 3, xvi, 433.

A modified drainage for suprapubic prostatectomy. G. H. D. N. Y. M. J., 9 3, xcvi, 45.

Miscellaneous

Urologic diagnosis. D. O. SARTER. W. Va. M. J., 9 3, in.

Serodiagnostics of gonorrheal affections. FROCKLATER and G. SCHMIDT. Russk. j. cojnarch. i ven. bolez., Moscow, 9 3, xiv, No. 4.

Ejaculation in affections of the urinary tract. RICHARDO DE S. VITOR. Med. contemp. Lisboa, 9 3, xxi, 82.

H. aim in infections of the uro-genital apparatus. VITOR DA CUNHA. Zentrbl. f. d. ges. Therap., 9 3, xxi, 393.

Infection of the urinary passages with colon bacillus. HUSE. Mitt. d. Grenzgeb. d. Med. u. Chir., 9 3, xxi, N.

Preliminary report on the cutaneous deposit reaction of gonococcal bacteria. N. L. ANDERSON. Urol. & Cutan. Rev., 9 3, xvi, 40.

Morphology of species of actinomyces of the male genital organs treated by vaccination. T. COHEN. Zentrbl. f. Bakteriolog., Parasitenk. u. Infektionskrankh., 9 3, lix, 300.

The importance of the germinal glands with respect to changes in sexual passion. G. SCHMIDT. Ztschr. f. d. ges. exp. Med., 9 3, i, 330.

Interesting malformations of the genital organs of man. ANDERSON. München. med. Wchnsch., 9 3, xxi, No. 3.

Penile amputation in typhoid carrier. LITTE. Deutsche med. Wchnsch., 9 3, xxi, No. 3.

A combined cystoscope and cystometer. STAA. Can. N. Y. M. J., 9 3, xcvi, 365.

Conservative surgical treatment in urology. ARTHUR SCHWENK. Ztschr. f. Anal. Fortbild., 9 3, x, 450.

Uterus with two Fallopian tubes and two testicles in the bony sac in an individual with normally developed male external genitalia. PELLEGRINI. Gynecologia, Milano, 9 3, x, No. 5.

SURGERY OF THE EYE AND EAR

Eye

- Concerning certain ocular injuries and their treatment. G. E. DE SCHWARTZ. *Therap. Gaz.* 1913, xviii, 513.
- Cases of injury to the lens and of foreign body in the eye. J. L. GUNSON. *Australas. M. Gaz.* 1913, xiv, 67.
- The present approved methods of treatment of obstructions to the lacrimal-nasal duct. L. N. ROBERTSON. *J. Kansas M. Soc.* 1913, xii, 370. [678]
- Infection of the posterior ciliary arteries. G. COATE. *T. J. Internat. Cong. Med. Lond.* 1913, Aug. [678]
- The results of the first hundred squint cases operated upon by the new method of subconjunctival reefing and advancement, the lengthening of the antagonist, here necessary. N. B. HARRIS. *T. Internat. Cong. Med. Lond.* 1913, Aug. [678]
- The cause and treatment of convergent squint. A. L. BULLOCK. *J. Indiana M. M. Assn.* 1913, vi, 157. [679]
- Sympathetic ophthalmia, with recovery. F. C. H. TH. *J. Indiana M. M. Assn.* 1913, vi, 164. [679]
- Unusual types of punctate cataract. T. B. HOLLOW. *Ophth. Rec.* 1913, xxi, 497.
- Diagnosis of sarcoma of the choroid, two cases of sarcoma with decreased intra-ocular pressure and one case of sarcoma of the eye. S. L. KLEINOWSKY. *Russ. Arch. St. Petersburg.* 1913, xii, 553.
- Sarcoma of the orbit following Mikul's operation. D. WOOD. *Ophth. Rec.* 1913, xxi, 4.
- Melanotic sarcoma of the choroid coat of the eye, report of case with apparent secondary involvement of retina. GEORGE P. KLEINER. *Ann. Ophth.* 1913, xvi, 415.
- A large orbital osteoma. E. M. HARRIS. *Ophth. Rec.* 1913, xxi, 410.
- Glascoma operation. P. SMITH. *T. Internat. Cong. Med. Lond.* 1913, Aug. [679]
- Observations on operations for glaucoma. DUBOIS. *Riv. Ocul. M. J.* 1913, vi, 35. [679]
- Dermoid of the eye. KRAUSSEMER. *Klin. Monatsbl. f. Augenheil.* 1913, x, 706.
- A case of bile and orbital phlegmon following empyema of the frontal sinus and the ethmoidal cells, with special consideration of the pathological anatomical findings. S. TAKASAKI. *Klin. Monatsbl. f. Augenheil.* 1913, x, 35.
- Orbital cellulitis caused by erysipelas. S. B. MCCARTER. *Ophth. Rec.* 1913, xxi, 45.
- Tamponade treatment of accessory sinuses for intra-ocular inflammation. Wm. S. MANNING. *South M. J.* 1913, vi, 33.
- The use of conjunctival flap in the treatment of corneal infection and pterygia. ELMER G. STARR. *Ann. Ophth.* 1913, xxi, 47.
- Ocular manifestations in nasal and nasal diseases, high probability indicate involvement of the sympathetic nervous system. W. H. HARRIS. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 384.
- Deformity of the skull with ocular symptoms. HAROLD LARSEN. *Klin. Monatsbl. f. Augenheil.* 1913, x, 145.
- Ophthalmic progress in Egypt. A. F. MACCALLAN. *Lancet, Lond.* 1913, cxcvii, 470.
- The importance of ophthalmological examination in immigrants. MAURICE COHEN. *Med. Rev. Rev.* 1913, xix, 484.
- An address on the influence of the British Medical Association in establishing ophthalmology as a special science. THOMAS H. BACKLUND. *Brit. M. J.* 1913, i, 4, 2.

A contribution to the history of the instrument as applied to ophthalmic surgery. H. G. SARRIS. *Cleveland M. J.* 1913, xii, 550.

Ear

- Conservatively treated peri-auricular subperiosteal abscesses in scarlet fever. SCHNEIDER. *Therap. Monatsbl.* 1913, xxi, 508.
- Abscess of frontal lobe of the brain, of otitic origin, with exhibition of spiculae. T. P. BARKER. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 433.
- Danger signals in suppuration of the middle ear. J. HOLLIGER. *Rhinol. M. J.* 1913, xiv, 107.
- Peri-aural abscess as complication to acute middle ear suppuration. JAMES HARTER. *Practitioner Lond.* 1913, xci, 3.
- Treatment of chronic suppurative otitis. FERNANDEZ. *Rev. de med. y cir. pract., Madrid.* 1913, xxvii, No. 370.
- Phlegmon in middle ear abscess. S. G. DARTON. *Louisville Month. J.* 1913, xi, 74.
- Intracranial division of the auditory nerve for persistent throb. CHARLES FRAZER. *J. Am. M. Assn.* 1913, lxi, 477.
- The diagnosis of rupture into the lateral ventricle and of acute internal meningitis. E. KUTTER. *Laryngoscope.* 1913, xxiii, 89.
- Brief consideration of certain recent views regarding otosclerosis. T. HARRIS. *Laryngoscope.* 1913, xxiii, 80.
- Abscess of the vestibule of dental origin. FARRAR. *F. Otol. Rhinol. & Laryngol.* 1913, xxii, 35.
- Two cases of loss of coloric vestibule reaction, with operative findings. E. B. DIXON. *T. Internat. Cong. Med. Lond.* 1913, Aug. [679]
- Report of twenty cases of inflammatory affections of the labyrinth. PHILLIPS, FOWLER, KIMSTON, and SARRIS. *N. Y. M. J.* 1913, xxviii, 303.
- When to operate on the labyrinth in labyrinth infection secondary to purulent otitis media. G. B. SARRIS. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 303. [680]
- The technique of the labyrinth operation. E. B. DIXON. *Laryngoscope.* 1913, 814.
- Trephining of the labyrinth for vertigo and buzzing in the ear. R. BOKRY. *T. Internat. Cong. Med. Lond.* 1913, Aug. [680]
- Anatomical preparations to illustrate trephining of labyrinth. R. BOKRY. *T. Internat. Cong. Med. Lond.* 1913, Aug. [681]
- The report of case of paroxysmal vertigo and symptoms cured by operation on the labyrinth. J. R. PAGE. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 3.
- Diagnosis and treatment of acute mastoiditis. GEORGE H. MATTISON. *Cand. M. Assn. J.* 1913, vi, 673.
- Mastoiditis, diagnosis, non-surgical treatment and indications for operation. C. A. HARRIS. *Clinique.* 1913, xxiv, 437.
- Surgical anatomy of the mastoid. J. MOURRY. *T. Internat. Cong. Med. Lond.* 1913, Aug. [681]
- The combined laboratory and X-ray indications for the mastoid operation. G. S. DIXON. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 360.
- Clinical indications for the mastoid operation. W. S. B. LARRY. *Ann. Otol. Rhinol. & Laryngol.* 1913, xxii, 482.
- The radical mastoid operation in children. D. G. Y. KIM. *Am. J. Surg.* 1913, xxvii, 593.

Management of mastoid wounds. W. S. B. Y. VI.
Internat. Cong. Med. Lond., 93, Aug. [681]
Diagnosis of ligating the jugular vein in otology and possi-
bility of preventing them. KRAUSCH. Internat. Zentrabl.
f. Otorhinol. u. Rhinol-Laryngol., 93 v 16 [682]

Pharyngeal drainage of cranial suppurations of otogen-
ous origin. P. JACQUES. Tr. Internat. Cong. Med., Lond.,
93, Aug. [682]
Illuminated ear speculum. FREDERICK A. KNEHR
J. Am. M. Ass. 93 12 49

SURGERY OF THE NOSE THROAT AND MOUTH

The correction of nasal deformities particularly lateral
deflections and depressions with obstructing deviations of
the septum. G. M. MARSHALL. Penn. M. J. 93 xvi
153.

Odd cases of nasal deflection with suggestions as to
treatment of nasal deformities. OTIS H. McCI. Illinois
M. J., 913 xiv 10.

The septum nasale and its abnormalities. F. VON
MERTZ. Practitioner Lond. 93 xci, 101.

Pathology and diagnosis of malignant diseases of the
nose and nasal-pharynx. H. MARTEN. T. I. Internat.
Cong. Med. Lond., 93 Aug. [683]

Unusual bullet wound of frontal sinus. KUNZERT
PRAKTIK. J. Am. M. Ass., 93 li, 4.

Post-operative dry rhinitis and its prevention. Con-
tribution to the prevention of post-operative cerebral
complications of nasal origin. RUSSE. Ztschr. f. Otorhinol.
u. L. d. Krimh. d. Luftr. 193 li, 10.

Hypertrophic rhinitis and hypertrophy of the superior
turbinate. T. B. LAYTON. Gray's Hosp. Gaz. 93 xiv
141.

Atrophic rhinitis with ozone — its etiology and surgical
treatment. F. P. EMMERSON. Ann. Otol. Rhinol. &
Laryngol., 93 xxi, 133.

Tumors of the septum. R. H. JOHNSON. Laryngoscope
93 xxi, 134.

Temporary resection of superior maxilla for ossifying
chondroma of nasopharynx. ACHILLE and HENRI
Lyon. Chir., 193 x, 135.

Radium treatment of rhinophyma. DEGRAS. Stroh
Laryngosc., 93 vi, 10.

Polyp. V. H. WATT WOOD. VI. Practitioner Lond.
1913 xii 93.

Cases of nasopharyngeal polyp: some points on
operation technique. DUBIN and VACQUE. Rev. hebdom.
de Laryngol. d'otol. et de rhinol. Bordeaux. 93 No. 3.

Two cases of nasopharyngeal polypus in young persons
removed and operated on for adenoids. BUTT. Penn.
M. J. 93 xvi, 601.

Intranasal treatment of Meckel's ganglion. E. M.
HOLLER. Ann. Otol. Rhinol. & Laryngol. 93 xxi
132.

Some attempts at the intranasal transplantation of
nasal tumors. S. JACQUES. Ann. Otol. Rhinol. & Laryngol.
93, xxi, 130.

Intranasal opening of the superior maxillary sinus.
ONALD LEVINE. Ztschr. f. Laryngol., Rhinol. u. L.
Grenzgeb. 93 vi, 419.

A case of purulent sinusitis after an intranasal inter-
ference. RUSCH. Ztschr. f. Otorhinol. u. L. d. Krimh. d.
Luftr. 93 li, 10.

Conservation versus radicalism in nasal surgery.
NEWTON BOWMAN. Tex. Med. News. 93 xxi, 507.

Adenoids and enlarged tonsils. T. M. MARTIN. Clin.
J. 913 xli 339.

Removal of adenoids by direct inspection. J. C. BRYCE.
Ann. Otol. Rhinol. & Laryngol., 93 xxi, 73 [683]

The removal of adenoids and tonsils in children. A.
CARMICHAEL and F. E. GARLAND. Boston M. & S. J. 93
li, 307.

The excision of tonsils and removal of adenoids.
H. BULLOCK. Australas. M. Gaz., 93 xxiv, 197.

Gangrenous tonsil. U. S. BIRD. South. M. J. 193,
530.

The significance of plasma cells in the tonsils. GORDON
J. WILSON. J. Am. M. Ass. 913 li, 345.

The symptoms of pathological lingual tonsil and its
treatment. HAROLD HAYES. Am. J. Surg., 913, xxvii, 309.

Report of case of phlegmon starting as peri-tonsillar
abscess and extending downwards and as far as the second ring
of the trachea. G. L. RICHARDS. Laryngoscope 913
xxv 835.

Is the present intubation of the tonsil justifiable?
J. A. WATSON. V. M. Semi-Monthly, 93 xvi, 37.

Treatment of the pharyngeal tonsil. R. GOLDMANN.
Monatsschr. f. Otorhinol. u. Laryngo-Rhinol., 93 xiv, 29.

Surgically technique for the removal of the faucial
tonsils. L. F. LORCA. Laryngoscope, 103, xxi, 838.

Indications for and relative value of tonsillectomy.
J. L. GOODALE. T. Internat. Cong. Med. Lond., 93
Aug. [684]

Results in series of cases of tonsillectomy at the
Massachusetts General Hospital, three to four years after
operation. J. P. CLARK. Ann. Otol. Rhinol. & Laryngol.,
93, xxi, 4.

The pathology of the various acute inflammations of
the throat and neck including acute tonsillitis, pharyngitis
and erysipelas and angina buccalis but excluding diphtheria.
P. R. W. DE SAKET. T. Internat. Cong. Med., Lond.,
Aug. [684]

Safety pin removed from the larynx of child by direct
laryngoscopy. HARMON SMITH. N. Y. M. J. 93, xxviii,
53.

The normal and the diseased larynx of the living in the
X-ray picture. THORZ. Ztschr. f. Laryngol. Rhinol. u. L.
Grenzgeb., 93, vi, 90.

Chronic stenosis of the larynx and trachea. C. A. LEAVY.
Laryngoscope 93, xxi, 84.

The treatment of diphtheritic stenosis: data furnished by
the Wiesbaden Children's Hospital in Moscow (for the
years 1897-1900). N. U. USKOV. Russk. Peditria 193
No. 4, 57.

Remarks and results on twenty cases of laryngeal diph-
theria requiring tracheotomy. C. E. PERCILL. Laryngos-
cope, 93, xxi, 849.

Diphtheria in tuberculous of the larynx. RÉMY.
Ztschr. f. Laryngol. Rhinol. u. L. Grenzgeb. 93, vi, 51.

Notes on the tubercular laryngitis. D. A. WALKER.
Oor. J. Mo. St. M. Ass. 93 x, 60.

Effect of pneumothorax treatment on laryngeal tuberculosis. L. WIDCULIN. *Ztschr. f. Laryngol. Rhinol. u. l. Grenzgeb.* 19 3, vi, 203.

Metastatic abscesses in the musculature of the larynx. R. LUKOWITZ. *Ztschr. f. Laryngol. Rhinol. u. l. Grenzgeb.* 9 3, vi, 281.

A report of a case of carcinoma of the larynx, with complete laryngectomy and the cause of papilloma of the larynx, with thyrotomy. A. J. LOUZE. *Physician & Surg.* 9 3, xxiv, 358.

Acute primary infectious edema of the larynx and its microbiological relationship. BAR. *Ann. d. mal. de l'oreille, du larynx, du nez, et du pharynx, Par.* 9 3, xxxix, No. 7.

Suspension laryngoscopy. An demonstration of method. W. FRIEDENBERG. *Ann. Otol., Rhinol. & Laryngol.* 913 xii, 464.

The best method for extirpating the larynx. R. BOWEN. *T. Internat. Cong. Med., Lond.* 9 3, Aug. [445].

Complications in the cure of a case of total extirpation of the larynx and the pharynx for carcinoma. HOOCHEN. *Ztschr. f. Laryngol. Rhinol. u. l. Grenzgeb.* 9 3, vi, 3.

Laryngectomy subsequent to tracheotomy for epithelioma of the larynx. DAN McKENZIE. *Lancet, Lond.* 9 3, cxxxv, 287.

Incision. R. W. BENT. *Penn. M. J.* 9 3, xvi, 299.

Endothelioma of epithelioma of the epiglottis. SASSON. *Beitr. z. Anat., Physiol. Path. u. Therap. d. Ohren, d. Nase u. d. Halses, 9 3, vi, Nos. 4-6.*

Acute retropharyngeal abscess. ALEXANDER and MORTIMER. *N. Y. M. J.* 9 3, xxviii, 224.

Primary malignant growths in the pharynx. E. OBERKAMP. *Arch. f. Laryngol. u. Rhinol.* 19 3, xxviii, 324.

The physiology of the mechanism of deglutition from roentgenocinematographic pictures. L. KUTNER. *Arch. f. d. ges. Physiol.* 19 3, xlii, 770.

A brush-shaped kerato-epith. focus of the maxillary membrane of the cheek, being a contribution on the etiology and histopathogenesis of cancer cutaneous. GEORGE KORYJENSKY. *Beitr. z. path. Anat. u. z. allg. Path.* 9 3, lvi, 57.

Authoritative diagnosis of gonorrheal stomatitis. JOHN BATHURST STOKES. *Med. Rec.* 9 3, lxxiv, 21.

Adenomatosis. JONASSEN. *Intern. Hosp. Tid. Kjøbenhavn.* 9 3, lvi, 206.

Solitary cysticercosis of the tongue. R. HANCO. *Arch. ital. di otol., rhinol. e. laringol.* 9 3, xxiv, 272.

Cureability of cancer of the tongue. BAUDER. *Gas. d. Hôp. Par.* 9 3, lxxvi, No. 89.

Ethyl chloride anesthesia in operative dentistry. A. KRECHER. *Wien. klin. Wchschr.* 913, xxvi, 277.

Allyl in dentistry. KRAUSE. *Deutsche Zahnärztl. Wchschr.* 9 3, xvi, 325.

INDEX OF SUBJECT MATTER

GENERAL SURGERY

SURGICAL TECHNIQUE

Aseptic and Antiseptic Surgery

- Disinfection of skin, 265 of the hands, 265
- Modern treatment of wounds and first aid, 266
- Alkaline operating gloves, 297

Anesthesia

- Anesthetics, Choice of 34
- Anesthesia, Present day method of Dissociative method of administering chloroform, 597
- Glands of internal secretion in chloroform
- Intratracheal ether 497 Oxygen and 497
- OC-ether 599 Hypocine-morphine, Danger and prevention of cardiac strain during, 33
- General, with ethyl chloride 599, by intramuscular injection, 598 Nitrous oxide gas, essence of orange ether and sequestration in, 266
- Lessened circulation in, 266 Blood pressure before, during and after 3
- Local Cutaneous nerve in, 267 Paralysis of the phrenic nerve in pleura, 267 600 Spinal 34, 268, 600
- Magnesium acetate, 497
- "Marsena, 60
- Anestheticum novum Experiences with 49
- Alypia, 268

Surgical Instruments and Apparatus

- Anesthetometer 60

SURGERY OF THE HEAD AND NECK

Head

- Face, Cancer of 498 Spasm of 38
- Lower lip, Fistula of 60
- Mandible, Fractures of, 60 Ankylosis of 34, 498
- Fibroma of 269 Epithelioma of 268 Carcinoma involving, 269 Resection of, 4
- Frontal sinuses, Separations of 604
- Temporal bone, Fractures of 604, Anomalies of 35
- Head lesions, Obsolete, 604
- Skull, X ray of 38
- Hydrocephalus, Congenital 4 Operative treatment of, 38
- Epilepsy Cysts causing, 269 Traumatic 38 Surgical treatment of, 605
- Meninges, Glioma of, 35
- Neck, Air in, Strictures of, 605, 606 Fracture of 383
- Stab wound of, 70 Defects in, 38 605 Abscess of, 36 Tumor of 35 606 Surgery of 36 270, 27 498
- Acromioclavicular 606
- Hypophysis and pituitary body Anatomy and histology of 607 Radiology of 608 Disorders of 5 Diseases of, 5 Tumor of, 35 Approach to, 4, 499, Experimental compression of 607 Surgery of, 36 607 608
- Pituitary gland, Histological structure of 7 Functions of, 27 7 Tumors of, 71

Neck

- Neck, Fistulae and cysts of 7 Hygroma of 7 Surgery of, 6 5
- Lymph glands of Tuberculosis of 7 Scrofula of 499 Surgery of 608, 609
- Carotid, Tumors of gland 37 6 5 Ligation of, 38
- Cervical b, 7, 8
- Submaxillary (osseous), Operations on, 383
- Thyroid 6 6 and parathyroid, 383 Pathology of, 6 6 Evolution of 273 Effect of upon blood formation, 499 Lesions of, 6 7 Atrophy of, 38 Diseases of, 73 500 Osteosarcoma of 500 Cysts of 500 Surgery of 274, 73, 50 6 6
- Thyroid colloid, Maltory connective stain for determination of anation in, 270
- Goutter Etiology of 38 Aberrant, 9; Exophthalmic, 503, 6 7
- Basedow disease 9, 384, 503
- Hyperthyroidism Treatment of 503
- Cretinism, Morphological studies in experimental 384

SURGERY OF THE CHEST

Chest Wall and Breast

- Breast, Cancer of, 503 6 8 Paget disease of, 385; Hypertrophy of, 1 Secretions of 385 Operations on
- Scapula, Scapulothoracic 6 9 Surgery of, Intrascapular thoracic amputation, 385
- Clavicle, Fractures of 6 9 Dislocations of 503
- Tumors of,
- Ribs Congenital absence of,
- Thorax, Congenital deformity of 274 Wounds of 74, Surgery of, 503
- Pleura, Empyema of 30, 140
- Intrathoracic subpleural graft 385
- Artificial pneumothorax, 283, 504
- Thymus, 274, Hypertrophy of 73, 6 9

Trachea and Lungs

- Respiratory passages, Hemorrhage of 620
- Trachea Tumors of, 73
- Bronchiogenic carcinoma 620
- Bronchoscopy and esophagoscopy 6 9
- Lungs, Embolism of, 3, 275, 276, 505 Emphysema of, 140, Diseases of, 14 Surgery of, 6
- Artificial breathing for 3 days, 505

Heart and Vascular System

- Heart, Injury of 4 620; Disease of 6 Tumors of the alvea of, 6 Suture of 31 Temporary arrest of beats of 5
- Pericarditis, Tubercular 505

Pharynx and Esophagus

- Esophagus, Structure of 14 76 506, Inflammation of, 506; Cancer of 4 76 386 Cast of epithelial lining of 386 Plastic repair of 14

Miscellaneous

Chest Injuries of 6 8

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Abdominal wall Drainage through 6 Transverse incision in, 377 Laparoscopic plethysm of, 417 Desmoid of, 6, 306 Umbilical Tumor in region of, 387 Subphrenic abscess, 43 Peritonitis, Inflammation of, 14 77 387 388, 5077, 5078 Pouch of 5 Diaphragm, Fibromyositis of, 6 Hernia, Etiology of 7 Inguinal, 43, 44, 477 78 Intestinal 300, Neo-appendicular 622 ca W 388, 508; Incurrated diaphragmatic 389 Retrograde incarceration of intestine in 622 Subtransversal, 508 Treatment of 7 146, 509 Omentum, Function of 47 Significance of 509 Inflammation of 8 Tumors of 300, 509 Mesenteric Cysts of 300, 509, 51 Thrombosis of 6 3 Surgical diseases and injuries of 378 Urachus as factor in intestinal obstruction, 148 Diverticulum, Inflammation of 47 Meckel's, 300

Gastro-Intestinal Tract

Upper digestive tract Carcinoma and ulcer of 30 Stomach, Study of mechanism of 6 4, Movements of, 3 N-rs. of 6 3, 6 3 Displacement and fixation of 8 Dilatation of 30 Ilipercivity of 5 5 Occlusion of 302, Benign affections of, 6 5 Cancer of 30, 280, 30 302 5 1 Intestines of 5 3 Ulcer of 3 24, 25, 280, 28 30 30 5 5 Diverticulum of 48 Surgery of 24, 5 30 303, 514 Pylorus, Stricture (obstruction) of 28 Spasm of 26, 8 Ligation of 30, 303 Duodenum, Motility of 30 Ulcer of 140, 28 283, 284, 303 5 5 4, Lesions of 6 3 624 Indications for amputation of 620 Jejunum, Ulcers of 5 284 Surgery of 303, 620 Intestines, State of 307 628 Observation of, 26, 27 12, 3 5 34, 285 314 6 7 Bile ducts of 287, Stricture of 51 Adenoma of 42 Duodenum, Incompetency of 303 Cancer, Mobilization of 30 Valvulae of 304 Inflammation of 305 V. (Cecocolonostomy), 305 Appendix, X-ray of 30 Inflammation of 30, 25 286 307 5 5 6 Diverticula of 628 Surgery of 300 Colon, Peristalsis of 6 8 Dilatation of 3 Inflammation of 3 300, 5 7 Cancer of 308 578 Polyadenoma of 5 7, Gas cysts of 308 Adenoma about, 307 5 6 Surgery of 400, 628 Value of complete rest of 300 Sigmoid flexure, Tumors of 283 Rectum, Prolapse of 37 30 Tumors of 30, 31 285, 40 620 Surgery of, 280, 401 Dysentery Treatment of anastomotic 40 Fecal tumor 400 fistula, 31 Anom. Fistula of 40 Pylorus of, 40 Hemorrhoids, Operation for 403, 517 Gastro-intestinal tract, X-ray examination of 4301 Fluorography of 57 Physiology and pathology of, 630; Treatment of, 7 Digestive processes, Changes in 390 Enteropneustic woman 3 7

Liver, Pancreas and Spleen

Liver X-ray of 5 8 Injuries of, 390, 403; Abscess of 5 8 Angioma of 58 Chorio-epithelioma of, 5 8 Cysts of 57 404 Gall-stones, 58, 404, 5 9 Gall-bladder, Changes in 33 Congenital anomalies of, 570 Inflammation of 160, Surgery of 24 160, 405 Bile-duct, Regeneration of 55 Surgery of 34, 36, 50, 70 Ampulla of Vater Carcinoma of, 34 Bile Action of, 405 Icterus, Chronic, 301 Pancreas, Functional activity of 36; Hemorrhage of, 36 Inflammation of 37 20 Abscess, 161 Acute necrosis of, 39 Cysts of, 6 631 Surgery of, 37, 38, 302 5 0 Spleen, Inhibitory influence of 631 Rupture of, 631, Cysts of, 397 Surgery of, 406, 407

Miscellaneous

Abdominal condition of children, Diagnosis of, 303 Visceral organs, Concerning, 633 Parenchymatous organs of the abdomen Histomastic action of fatty tissues in injuries of 63 Surgical lesions of the abdomen, Elevated head and trunk position in treatment of 63 Colostomy in infancy and early childhood, 6 Abdominal operations, Relation between blood pressure and the prognosis in, 38 Laparothoracotomy 303

SURGERY OF THE EXTREMITIES

Diseases of Bones, Joints, Muscles, Tendons—Conditions Commonly Found in the Extremities

Bone Regeneration of 30, 6 431 Acute atrophy of, 400, Lesions of 6, 415, Osteoma of, 434 Periostitis, 34 Osgood-Schlatter disease of 520 Pigeon disease of, 520, Rickets disease of 42, 63 Heliotherapy in diseases of, 427 Inflammation of 4 163 301, 623, 634, Tuberculosis of 30, 64 65, 408, Uncomminable, 4 400, 635 Cysts of 625 Cystic tumor of, 400 Metastasis of, 41 Limb starvation 66 Joint, J. joints the knee, 303 Mobilization of an ankylosed elbow, 410, Diseases of 41, 166, 168, 67 520 630 Tuberculosis of 68 166 412, 5 Scurvy, hip, 45 Intra-articular milk (abscess) in paralysis 470 Brachial plexus, Etiology of 32 Chronic tracheitis, 44 Muscles Inflammation of, 41, 67 Tendons, Regeneration of 45 Sarcoma of 4 1 Granuloma of 4 Cow fractures Hypertonic after accidents, 303 Hand, Infection of 60, Fracture, 205 Extremities, Gangrene of and its treatment, 52 Callus, Action of X-ray on development of 408 Hallux, alipes, Pathology and treatment of 52

Fractures and Dislocations

Fore arm, 30 Reposition of 627 of the radius, 628; of the elbow joint 306 of the forearm 628 of the knee 4 of the calcaneus, 4 Dislocation of the forearm 307 of the knee, 4 21 Traumatic dorsal complete radiocarpal, 7 Lower femoral epiphysis, Separation of 52

Rapture of the crucial ligaments of the knee and fractures of spine of the tibia, 53
 Condyar cartilages, Injuries to, 207
 Jenu-epiphyseal sprain and sprain of lower end of radius, 657

Surgery of the Bones Joints etc.

Finger and toe phalanges, Replacement of, 300
 Volar surface of wrist joint and of hollow of hand, Surgery of 524
 Surgical treatment, of Volkmann contracture 75
 of fracture of femur, 72, 4, of fractures of the patella, 73 in pseudo-arthritis, 200 of paralytic foot, 7 of lamo feet, 414 of the posterior tibia, 630 for tuberculous of joints, 7 413
 514 for bony ankylosis of joints, 200 of snapping hip, 630 of the ankle joint, 630
 Plastic surgery of the joints, 207 524
 Autoplastic graft of fibula, 53
 Muscles, Sarcoma of, 300
 Tendons, Friction, 46, Implantations of 74
 Transplantation, of joints, 74, 200, 55 of fat in surgery of joints, 74 of fat in bone sarcoma, 523-630 of periosteum, 524; from the dead and from monkey 300 of muscles, 414 of tendons, 640
 Amputations, Technique of movable stump in 75
 Gaps, 75, of the femur 4 4
 Rection of the leg, 46
 Ivery implantations, 73

Orthopedics in General

Orthopedic surgery Progress in 55
 Polio-myelitis, Human carriers in, 640 Deformities following, 4 5
 Mademoiselle deformity of the wrist, 416
 Congenital luxation, of the radius, 50 of the hip 415
 515
 Congenital, absence of femur 30 equinovarus, 77
 Foot strale, Prevention of 5
 Flat-foot, Operation for 50 55
 Cox vara, 77
 Talipes equinus deformity 30
 What to do after corrective jackets reduced 48

SURGERY OF THE SPINAL COLUMN AND CORD

Spine, Scoliosis of 47, 48, 49, 76 526 64
 Ankylosis of, 520, Tuberculosis of 45 Pot disease of 526, 64 Tumors of 40 50 520
 Very diagnostic in pathological conditions of 640 Fractures of, 70
 Spinal bone transplant and bone growth Steady of 76
 Spinal cord Surgery of 30
 Talcic gastric crises, 30

SURGERY OF THE NERVOUS SYSTEM

Sciatica, Treatment of 5 47 64
 Paralysis, Brachial, 5 526 57 528
 Nerv Recognition of somatic motor hair 15, 5
 Hyperexcitability of in tetany 5 150
 X-rays on 47 Tumor of 46 Ex rection of roots of, 30 1 flection of alcohol list 5 Surgery of 53, 302 47 528

SKIN AND SURGERY OF THE SKIN AND ENDORGANS

Skin, Carcinoma of 48 520 Epithelioma of 57
 Tuberculosis of 57 Criss of, 57 30
 Fungus, Transplantation of, 57 77 520, 530
 Pemphigus, Bacteriological findings in 520

Therach grafts, Extensive thickening of 48
 Lepen, Treatment of 303
 Purpura, Surgical aspects of, 58
 Rb cartilages, Transplantation of, 70

MISCELLANEOUS

Cl of Entom — T mors Uchers Abacises Etc.
 Tumors, Position of 642 Influence of kcdidin nd cholesterol upon growth of 58, Investigations on, 304 Growth of metastases of 60, 530 Malignant, 48 Transplantation of, 58
 Cancer Etiology of 304, 305 49 643 Menace of 73 Heredity 1th reference to, 50 Blouse, 78
 I tra enous injections of various substances in, 70 Treatment of 70
 Sarcoma, Disappearance of round-celled 644 Giant elled 530
 Epithelioma, Normal and cancerous, 70
 Mycetoma, 305
 Myeloma, 420
 Tuberculosis and new growths, 643
 Cells, Vulnerability of fast growing, 643 Develop-ment of giant, 643
 Tumors, Changes in 644
 Glands of internal secretion, Diseases of 530
 Lesions Border-line pathological, 6
 Burns, Death from, 60
 Apboma, Hysterical 644
 Injuries, Clinical character and treatment of railway 645

Sera, Vaccines and Ferments

Serum, diagnosis of tumors, 6 Complement-con- taining, 646 treatment of tuberculosis, 306, 52
 646
 Euryenes, Protection, of the blood, 30
 Vaccination Treatment of cancer patients by 53
 Anaphylaxis, Nature of, 6 Cardiac disturbances during, 63 Protein cleavage products and 647
 Immunity against tetanus toxin, 533 against tuber- culosis, 8

Blood

Hæmorrhage Momburg tube in caves of 4 ; Arrest of 42 ; Abnormal tendency to, 647 in children, 306 three months after trauma, 4
 Blood, serum, Studies on, 8 Complement content of in malignant disease, 533 Detection of foreign substances in, 8 as route of infection, 63
 Coagulation of 83 307 Prolonged intravenous infusions of 533 Intravenous injections of 420- Transfusions of 307
 Hemoglobins to bile Rapid change of 420
 Hemoglobin of 40 per cent or less, 66
 Icterus, Hematogenous and obstruct 420
 Thrombosis, Traumatic errors 4 of the portal ein 307 and embolism, 66
 Thrombophlebitis, 307
 Wermian reaction 4
 Lymphocytes of infection, 65
 Leukocytic inclusions of Duhrle, 64
 Constituents of blood in immunized bove 647

Blood and Lymph Ferments

Anemia, Duroms of 83 Occupational 64 Circled 304 Treatment of, 67
 Arteries Tuberculous of 308 Anastomosis of 63
 Suture of 43 Embolus of the femoral 83

- Venua, Gangrene due to paralysis of 308
 Tissues of, 308
 Injuries of, 410
 Action of adrenalin upon, 43
 Vena cava, Occlusion of the inferior 63
 Portal vein, Ligation of, 309
 Veitling's operation, 184
 Varices, Valvular insufficiency in, 647
 Treatment of, 133
 Lymph venous, Restoration of, 424
 Infections granulo-
 mas of, 648
 Endotheliomas of, 129
 Intradermal
 varicos of 44
 Elephantiasis, Etiology of 309
 Drainage in, 425
- Poisons**
 Streptococci, Interrelations in the group of, 433
 Differentiation of certain of the 69
 Colon septici, 154
 Micrococci tetragonus, 3
 Infections, Acute surgical, 3
- Surgical Therapeutics**
 Laparotomy, Value of peritonitis after 3
 Wounds, Sugar treatment of 3
 Surgical shock, Military extract in, 3
 Antibius, Treatment of, 425
 Septic processes, Action of collargol emulsion in, 425
 Treatment of 3
 Suppurative abscess and empyema, Bismuth paste
 treatment of 648
 Hexamethylenamine in surgery 134
 Colloidal silver, Influence of, 84
 Synthetic hydramide-Bayer A substitute for fluid
 extract hydramide canadensis, 115
 Results of operative and non-operative abdominal
 tuberculosis, 69
- Surgical Anatomy**
 Anatomy of the inguinal region, 3
- Electrology**
 X-ray, examination for stones in the urinary tract, 449
 Control of, 451
 treatment of tumors, 456
 influence on deep-seated carcinoma, 460
 Treatment of deeply-penetrating, 473
 department of St. Bartholomew's Hospital, 46
 Röntgen ray and cancer 7
 650; Experiments with
 apparatus, 84
 in the study of alimentary canal
 3
 648
 therapy 650, 651
 in conservative
 surgery 534
 Radio-act. substances, Effect of upon normal and
 pathological tissues, 649
 Treatment of malignant
 tumors with, 85
 Radium, in malignant diseases, 650
 Program of
 therapy 640
 Employment of in surgery 37
 Secondary rays, Causing diaphragm to cut off 446
- Military and Naval Surgery**
 Peritonitis from over-exertion and spontaneous lac-
 ures in the army 65
 Manual bandage 651
 Experiences with, 426

GYNECOLOGY

- Uterus
 Uterus, Normal function of, 535 Double, 536, Tumors
 of, 58 Cancer of, 74, 75, 76, 8, 3, 5, 3, 4, 3, 3
 438, 535, 55 Sarcoma of, 75, Chorio-epithelioma
 of, 74, 87, 427, Adenomyoma of, 427 Myoma of,
 76, 429, 433 Fibromyoma of, 88, 89 Cystic
 tumor of, 396, Scheraga of, 43, 434, Coproecia en-
 closing, 437 Prolepsis of, 95, 537 Displacement
 of, 90 Undeveloped, anfiblast, 100 Inversion of,
 89, 43 Retroflexion of, 43, Rupture of,
 518, 433 Perforation of, 3, 8 Surgery of,
 77, 98, 78, 19, 93, 553; Hemorrhage from,
 89, 3, 7, 518, 429, 550, 551 Amenorrhea, 3, 7
 41, Dysmenorrhea, 89, 450; Menstruation,
 129, 97, 430, 430, 55, 554, 555, Menopause, 514,
 43; Leukorrhoea of, 554
 Coexisting, Contractions in, 90
 Paracervical, Chronic, 554
 Endometrium, Inflammation of, 43 Investigations
 of, 314
 Character: Influence of, 313
 Adrenal and Perineurial Conditions
 On, by Functions of, 3, 8 Internal secretion of, 655;
 Influence of, on internal secretion, 93 Arrange-
 ment and distribution of nerves of, 433 Rupture
 of follicle of, 538 Cancer of, 539 Sarcoma of,
 539, 555, Endothelioma of, 539, Neuro-epitheli-
 oma of, 76, Histiocytoma of, 539, Cyst of, 510, 310,
 655; Pseudo-myoma peritonei: Its removal, 433
 Sterilization of, 510, 540 Graft of, 3, 9,
 433; Transplantation of, 434 Surgery of, 314, 434
 Broad ligament, Peritoneal membrane of, 540
 Adhesions, Affections of, 633
 Elements of, 31 claustrum, Nature of the so-called, 79

Urinary conditions associated with frequent or painful micturition, 543
 Urinary tract, Infection of, 80, 544
 Uterer Extravascular opening of, 436 Calcification of, 657
 Ductless glands, Function of, 96

Pelvic thrombosis, 658 Suppuration and value of leucocyte count in, 97
 Micro-organisms in experimental septicæmia, Localisation of, 437
 Operative treatment of old infiltrations, 438

OBSTETRICS

Pregnancy

Pregnancy Diagnosis of, 9 99 205 317 45 55
 552, 667 668 Determining length of, 33 660
 Positive sign of uterine, 660 Eclampsia 99, 200, 315, 326, 444, 66 661 Intermittent 3 Abdominal, with living child, 545 Pernicious vomiting of, 660 Haemorrhage of, 337 Thrombosis, 330, 545 667; Affections of the heart in, 330, 332, 440, 45, 545, 546, 66 1 Infections complicating, 663, 668 Patent ductus arteriosus in, 66
 Multiple sclerosis in, 433 Menstruation, agnatis in, 447 Tuberculosis and, 99, 30 Endometriosis in, 328 Cholecystitis and Cholelithiasis associated with, 329 Cholesterol content of bile during, 660; Fat and cholesterol content of, 553 Displacement of caecum during, 459 Metabolism during, 3 7 330, 545 660, Skin urticaria during, 85, Ovarian cysts complicating, 441 Bilateral ovariectomy during, 25, Myoma and, 8 8
 547 Psychoses of, 8 Ruptured uterus during, 447 Kidney in, 202, 325 329, 41 44 443
 Bladder troubles in, 5 Toxicity of urine in, 2 26, 454 Clinical significance of urine in, 3 667, Glycosuria in, 443; Leucæmia in, 328 Internal secretion and, 553 Changes in parathyroid glands in, 550; Care of the nipple during, 667 Adrenal, in, 543
 Cesarean section, 84, 548, 549, 66
 Abortions, Bacteriæmia in, 204 Treatment of streptococcus, 328 Treatment of, 328
 Pregnancy labor and puerperium in extremely mal-lateral telangiectases and varicose formation with lymphatic elephantiasis, 329
 Transverse position, Uterus bicornis as cause of, 84

Labor and Its Complications

Labor Aspects of, 550, Distention of the stomach during, 550; Rupture of the esophageal varices occurring during, 440 Rupture of vaginal fornix during, 334; Intraperitoneal hemorrhage during, 440 Hematomas of the abdominal wall during, 440 Hematomas of the abdominal wall during, 440 Ovarian abscess after, 55 Artificial induction of, 440 New manipulation during, 203 Medical treatment for, 440 Prolonged precipitate, 663
 Delivery Fever during, 448 of the shoulders, 448 In total paralysis of the body, 663
 Presentation, Face, 448 Frontal, 550 Breech, 334 Uterine inertia, 85 86
 Dysostea, 202 55
 Pelvic outlet tumors hindrance, 448
 Subcutaneous symphysectomy of Frank, 450

How many full-term children in cephalic presentation pass the inlet spontaneously in flat pelvis and are born alive, 33
 Helicostomy, 455

Puerperium and Its Complications

Puerperal sepsis, 871 Infection, 203 457; tetanus, 664 eclampsia, 203 335 450, 664 thrombophlebitis, 87 447 Intracranial haemorrhage of uterus, 203; haemorrhage 45
 Puerperium, Action of oxytocic substances during, 450; Haemorrhage in, 334 Malaria in, 55 Inversion of uterus in, 334
 Post-abortion and post-partum infection, 664
 Puerperal psychosis post-partum, 665

Miscellaneous

New-born, Meconium in dissection of, 454; Delayed expulsion of, 337 Meningeal hemorrhages in, 83
 Bleomorrhage of, 553; Head injuries of, 204 Care of umbilical stump of, 208, 555, 666
 Intra-uterine rupture of foetal liver, 666 sucking, 554
 Foetus, A young human, 554 Respiratory movement in, 335 with solid embryonic of coccyx, 208, 336 Time between foetal infection occurs in, 336
 Foetal, return to cause onset of labor, 99, 666 Influence of X-rays on membranes, 336 hormones, 665
 Functions of kidneys, 555
 Placenta, Location of, 354 bacteriæmia, 553; of giant infants, 554 escape of into peritoneal cavity after, 447 prævia, 327
 Syncytial lacunæ in human ovum, Origin of, 454
 Internal secretion of mammary glands, 204
 Spermatosa in cervical canal eighteen hours after rape, 555
 Hemostasis in obstetrics, 203, 206
 Contracted pelvis, Treatment of, 455, 555
 Sterility in the female, 206
 Paralysis, Lower arm type of obstetric, 454
 So-called Glands endocrine myometrial, 455
 Caput succedaneum as sign of vital reaction, 453
 Status hypoplasticus, Obstetrical significance of, 447
 Chronic with in uterine wall, 89
 Modern abortion, 453
 Pituitrin, 99, 207 208, 555 537 668
 Arsenobenzol in obstetrics, 9
 Pantopon, 208
 Electrolol, Clinical action of, 208
 Pelvic measurement with X-ray, 453
 Demonstration of infant pulmotor, 88
 New obstetrical forceps, 208
 New obstetrical bag, 9
 Statistics of Chinese Polioëtic, 557

GENITO-URINARY SURGERY

Kidney and Ureter

- Adrenal hypernephroma, 67
 Suprarenal capsule, Relation between chromaffin substance and adrenal is, 339
 Kidney Radiography of, 460, 660, 67 Physiology of, 339, 553 669 Anatomical changes in 669 Obstruction to the circulation of 553 Vena and hypertension of, 359; Calcification of, 309, 330, 34 485, 558 M. viable, 437 669 Injured, 450 Rupture of, 330 Hemorrhage from, 32, 350, 670 Disorders of, 3 Inflammations of, 2 2, 34 399, 550, 670, 67 Tuberculosis of, 503, 67 Pyelonephritis serosa, 458, Myelonephrosis, 459, 460, 673 Paternal carcinoma, 348 Cysts of, 457; Tumors of, 21 34 344, 558, 673 Despeculation of, 94, 15, 342, 460 50 670; Surgery of, 94, 95, 342, 40 402 359, 30 673 Functional tests of, 95, 96 342 673; Influence of collateral injections into 96
 Renal pelvis, Incretations of 93 Inflammations of, 93, 349, 459
 Nephrectomized, Future of, 3
 Ureter Radiography of, 213 Calcification of, 343; Obstruction of, 461 553 Hernia of, 463; Accessory 344 46 Dilatation of, 463; Catheterization of 12 463; Surgery of, 6, 40 463

Bladder, Urethra, and Penis

- Bladder Fistula of, 463 Foreign bodies in, 674 Obstruction of, 674; Emphysema of, 200, 463; Rupture of 96 Flaccidity of, 344 Inflammations of,

- tion of, 20, 463, 6 4 Tumors of, 9 95 674, Ureter of, 9 Surgery of, 98, 20, 463, 466
 Urethra, Mucosization and projection of the pector for, 463; Calcification of, 504 Stricture of, 504
 Gonorrheal infections, 465, 509
 External genitalia in the male, 345

Genital Organs

- Testicle, Torsion of, 346 Ectopia of, 345
 Epididymis, Tuberculosis of, 467; Inflammations of, 467; Gonorrhea of, 466, Surgery of, 673
 Hydrocele, Recession of, 345
 Prostate, Lesions of, 675 Atrophy of, 675 Hypertrophy of, 234, 347 507 Obstruction of, 666 Malignant diseases of, 675 Carcinoma of, 346; Surgery of, 2, 3, 467 547 563, 670, 677
 Seminal ducts, Radiography of, 345 Calcification of, 98 Ejaculatory ducts, Catheterization of, 99
 Perineo-scrotal dermoid cysts, 345
 Traumatic loss of skin of the male sexual organs, 345

Miscellaneous

- Urinary tract, Radiography of, 347 Calcification of, 345 Urothelium and bismuthide of, 508 Infection of, 467 344, 67, Colon bacillus in diseases of, 237; Micrograph following operation on, 348 Surgery of, 5, 360
 Urine, Excretion of formalin in, 468 Intermittent, 200 21
 Venereal prophylaxis, 348

SURGERY OF THE EYE AND EAR

Eye

- Lacrimal-nasal duct, Obstruction to, 678 Cystic dilatation of, 227
 Congenital apex of palpebral conjunctiva, 227
 Squint, One hundred cases of, 678, Cause, 679
 Eye, Injuries to, 370, Displacement of, 35 Blindness of, 351 Inflammations of, 67 227 30, 349, 570, 571 679 Tumors of, 23, 469 Carcinoma of, 28 Sarcoma of, 30; Angioma of, 370; Dermoids and dermo-lipomas of, 469 Surgery of, 3 277 469
 Punctate epitheliomas, 469
 Sympathetic ophthalmia, 37
 Cornea, Ulceration of, 3 Corneal, 202, Dystrophic epithelium of, 202 Degeneration of, 230
 Traumatic posterior lenticonia, 231
 Cataract, 229; Congenital 340; Hereditary 330 Operations for, 220, 229, 30 349, 259
 Glaucoma, 202; Chronic 30 Hemorrhagic, 250, Tension in, 330 Treatment of, 20 370, 679
 Optic disc as permanent optic disease, 93
 Posterior ciliary arteries, Infarction of, 678
 Amblyopia from hemorrhage, 469

- Eversion of the pigment layer, 23
 Scleral decompression in the treatment of intra-ocular tumor, 200
 Corneal localization from the standpoint of the ocellar, 57

Ear

- Epithelioma of trich and cervical glands, 3 9
 External ear, Otitis of, 24
 Middle ear, Otitis of, 469
 Otosclerosis, 680
 Mastoid, Surgical anatomy of, 68 Wounds of, 202, 68 Abscess, 35 Rapid healing of, 232, Operation on, 4 34, 33
 Loss of ciliary epithelium reaction, 679
 Labyrinth, Infection of, 234, 251 680 Trepanation of, 352 470 680 Technique of operation on, 68
 Otic neoplasms, 34
 Pharyngeal drainage of cranial neoplasms of otogenous origin, 683
 Pharyngeal collections of otic origin, 37
 Diseases of hearing the regular rule in otology, 682
 Aural specks and angular keratitis, 470

SURGERY OF THE NOSE THROAT AND MOUTH

Ear
 Rhinoplasty 66
 Vestibulum and its relation with the vestibular of
 sphenopalatine ganglion 57
 Inferior turbinate. New supply of 60
 Atrophic rhinitis, 471
 Nasal tumors, Intranasal transplantation of 63
 Nasal packing Removable 60
 Nasal stones, Anatomical and clinical relations of
 33 Non suppurative disease of 311 Surgery
 of, 57
 Nasopharynx, malignant diseases of 63 Oesophy-
 geodromous of 63 Tumors of 335 353 Surgery
 of, 33
 Tracheotomy, and Intubation, Decannulation and
 extubation after 108
 Asthma, Suppression of duct perigillous fungus,
 107 Empyema of 373 Cause of extending
 between the molar roots, 47

Throat
 Adenoids, 107 353, 63

Tonsil Question of 333 as a focus for septic
 infection 36 Surgery of 37 634
 Instrument for expediting the examination of im-
 bedded tonsils, 47
 Larynx, Laryngoscopic examination of 33, 334 Con-
 genital membrane of 69 Stenosis of, 334;
 Tuberculosis of 38, 333, 37 Tumor of 333;
 Surgery of 635
 Arterio-epiglottic fold Cyst of 47
 Throat and neck Inflammations of 634

Mouth

Tongue Cancer of 69, 30 Infiltration of the lingual
 nerve for operations upon, 573
 Cleft palate, 330
 Uvula and soft palate Adhesions of 37
 Palat mucous membrane flaps in ankylosis of the
 jaw due to cicatricial formations in the cheek
 573
 Gums, Tuberculosis of, 47
 Structure of dental pulp in ovarian teratomas, 47
 Misplaced mandibular canine 39

INDEX OF BIBLIOGRAPHY

GENERAL SURGERY

Surgical Technique
 Operative Surgery and Technique 4 335 47
 574, 685
 Aseptic and Antiseptic surgery 33 7
 574, 636
 Anæsthesia, 6, 24 335 5 60
 General, Local General subject on anæ-
 sthetics
 Special instrument and apparatus, 24 435
 47 574 637

Surgery of the Head and Neck

Head, 242, 335 74 75 637
 Scalp, Skin Nerves, Glioma Skull and
 Maxilla, Meninges Brain, cerebrum cerebel-
 lum, hypophysis
 Neck, 242, 337 474 376 638
 Skin, Glioma Muscles and blood vessels
 Nodes Throat Gutter Basaloid disease
 Graves disease Parathyroid Reti pharyn-
 geal conditions

Surgery of the Chest

Chest Wall and Breast, 3 244, 358, 475 577 630
 Breast Incisions, wounds, injuries, etc. Breast
 Pleura, Mediastinum Thyroid
 Trachea and Lungs, 3 244, 353, 475 577 630
 Trachea, Bronchi Lungs
 Heart and Vascular System, 4 44 239 475, 578
 690
 Heart, Pericardium Aorta
 Pharynx and Oesophagus, 24 244, 339, 475 578, 690
 Miscellaneous, 243 339 578, 690

Surgery of the Abdomen

Abdominal Wall and Peritoneum, 4 45, 390, 476
 573, 600
 Incisions and drainage. Tumors, Retro- and
 preperitoneal conditions, Peritoneum, Dia-
 phragm, Hernia Omentum, Mesentery
 Urachus, Diverticula
 Gastro-intestinal Tract 4, 246, 360 476 579, 60
 Stomach (and Pylorus) Duodenum, Small In-
 testines Cecum Appendix Colon, Rectum, Anus
 Sections of diagnosis, radiology, injuries,
 hemorrhages, oedema, inflammations ob-
 structions, hernia, ulcer tumor surgery
 general therapy
 Liver Pancreas, and Spleen, 7 48, 36 479, 58 693
 Miscellaneous, 8, 243, 363 480, 58 694

Surgery of the Extremities

Diseases of Bones, Joints, Muscles, Tendons, General
 Conditions Commonly found in the Extremities,
 8, 49, 364, 480, 583 694
 Bones, Joints, Muscles, Tendons
 Inflammations, tumors, cysts, etc.
 Fractures and Dislocations, 9, 30 365 48 584 695
 Surgery of the Bones, Joints, etc. 9, 30, 366 483
 581 696
 Orthopedics in general, 20 5 367 483, 585 696

Surgery of the Spinal Cord and Cord

Diseases and Deformities of the Spine 20, 5 366,
 48 585 697
 Inflammations, tumors, fractures, surgery Cord.

Surgery of the Nervous System

Nervous System, 5 367 483 585 697
 Inflammations, tumors, surgery

Diseases and Surgery of the Skin, Fascia, Appendages

Skull, Fascia, and Appendages, 121 3 363, 434, 556
608
Burns, Injuries, Inflammations, tumors, ulcers,
surgery

Miscellaneous

Clinical Entities, Tumors, Ulcers, Abscesses, Etc. 2
85, 364, 434, 556, 608
Tumors. Ulcers. Inflammations. Shock.
Tissue Transplantation. Surgical Wounds
Sera, Vaccines and Ferments, 22 53, 369, 435, 587
609
Serum Vaccine. Ferments. Immunization.
Amphylasts
Blood, 2, 51 369, 435, 587, 609
Blood picture in general. Hemorrhage. Coagula-
tion. Thrombosis. Embolism. Transfusion
Blood and Lymph Vessels, 5, 51, 369, 435 587, 700
Arteries. Vein suture and ligation. Lymph
vessels and glands
Poisons, 23 54, 370, 436 588 700
Bacterial. Chemical
Surgical Therapeutics, 24, 54, 370, 437 588, 700
Surgical Anatomy, 24, 54, 370, 437
Electrology, 24 54, 370, 437 588 700
X-Ray. Electrical treatment and injuries.
Heliotherapy
Military and Naval Surgery, 24, 53, 37 433 588, 701
Surgical Diagnosis, 24, 53 433

GYNECOLOGY

Uterus, 5 55, 37 433, 589, 702
Tumors. Hemorrhage. Inflammations. Mal-
formations. Displacements. Injuries. Surgery
Vaginal and Perineal Conditions, 5 50, 372,
464, 589, 701
Ovaries. Tubes. Ligaments. Pelvic conditions
in general
External Genitalia, 26, 58, 373, 489, 590 703
Vagina. Vagina. Urethra. Clitoris
Miscellaneous, 26 57 373, 490, 590, 703

OBSTETRICS

Pregnancy and Its Complications, 26, 57 374, 490,
591 703
Pregnancy. Eclampsia and toxemia. Cesarean
section. Abortion, Complications
Labor and Its Complications, 27 58, 375, 492, 592,
704
Contracted Pelvis. Abnormal presentation.
Dystocia. Hemorrhage. Surgical treatment
Puerperium and Its Complications, 27 58, 375, 492,
593 704
Diseases common to. Infections. Hemorrhage
Miscellaneous, 27 59, 375, 492, 593, 704

GENITO-URINARY SURGERY

Kidneys and Ureters, 3, 269, 378, 493, 592 704
Adrenal glands. Kidneys. Ureters
Trauma, calculi, displacement, malformation,
hemorrhage, tumors, inflammations, sur-
gery. Functional tests of
Bladder. Uthritis, Penis, 29, 26 377, 49 593, 705
Trauma, calculi, displacement, malforma-
tion, hemorrhage, tumors, inflammations.
Genital Organs, 29, 26 378, 493, 594, 707
Testicle. Epididymis. Spermatic Cord. Prostate
Miscellaneous, 29, 26 378, 493, 594 707

SURGERY OF THE EYE AND EAR

Eye, 30, 26 378, 495, 595, 708
Glaucoma. Trachoma. Cataract. Inflammations
Ear, 3 269 379, 495, 595, 708
(Outer ear. Middle ear. Internal ear. Alar-
tooth. Nerve sheath of optic origin, etc.)

SURGERY OF THE NOSE, THROAT AND MOUTH

Nose. Throat and Mouth (and oral surgery), 31 269
379, 496, 595 700
Nose. External. Internal
Throat. Tonsils, Adenoids, Larynx, Pharynx
Mouth. Palate. Cleft palate, teeth, tongue
General conditions

INDEX OF AUTHORS

- Abbe, R., 108, 650
 Abbott, E. G., 40
 Abrikosova, E. 33
 Abel, 181
 Abel, L., 330
 Ach, A., 245
 Ach, 181
 Adams, F. L., 666
 Adams, Z. B., 64
 Adamson, 203
 Adler, F. H., 76
 Albert, 130
 Alberici, 131
 Albrecht, H. C., 136
 Allen, O., 460
 Alexander, E. G., 75
 Allen, E. M.,
 Allen, A. R., 36
 Allen, L. W., 6
 Almasadi, 4
 Allison, N., 74
 Alperin, 97
 Allet, F. W., 3
 Alvarez, 27, 413
 Alvarez, A., 300
 Amato, G., 205
 Amos, 458
 Amshel, L., 133
 Armstrong, G. E.,
 Amund, 206
 An, 154
 Anderson, 230, 133
 Andolf, 86
 Anderson, C., 57
 Anz, G., 617
 Anzures, E., 156
 Anzures, A., 607
 Anzures, C. R., 306
 Anzures, R. A., 148
 Anzures, P., 405
 Anzures, P., 441
 Anzures, G. W., 68
 Anzures, O., 40
 Anzures, 21
 Anzures, W., 459
 Anzures, G., 243
 Anzures, H. C., 607
 Anzures, W., 58
 Anzures, W. S., 34
 Anzures, 615
 Anzures, K., 43
 Anzures, J. F., 663, 663
 Anzures, D. C., 30
 Anzures, J. M., 450
 Anzures, M., 308
 Anzures, M. J., 24
 Anzures, R. W., 40, 435
 Anzures, A. S. B., 52
 Anzures, 443
 Anzures, 137
 Anzures, 138
 Anzures, H. E., 5
 Anzures, A. E., 146
 Barkley, A. H., 140
 Barnes, 4
 Barney, J. D., 467, 504
 Barreau, E., 207
 Barrett, A. M., 35
 Bartow, 4
 Basham, D. W., 34
 Bassett, 453
 Bassett, A., 4
 Bauerbach, 1450, 544
 Baxm, 42
 Beach, W. M., 5
 Beaupard, E., 5
 Beck, 443
 Beck, L. G., 648
 Beck, J. C., 681
 Beckmann, W., 548
 Beckere, 3
 Belfield, W. T., 146
 Belknap, K., 564
 Bell, W. B., 60, 43
 Bellows, H. P., 170
 Benach, J.
 Benedict, 300
 Benbun, W. C.
 Bernard, 203
 Berg, A., 1
 Berkeley, W. N.
 Bernatola, P., 7
 Berner, O., 457
 Bernheim, B. M., 20
 Blach, P., 63
 Bier, 44
 Bismahski, K., 527
 Bigger, G. N., 386
 Binney, H., 5
 Bink, J. F., 45
 Bissel, J. D., 467
 Bjorkenheim, E. A., 134
 Black, E. J.
 Bland-Sutton, J., 19
 Bian, A., 430
 Blicher, 207
 Bloodgood, J. C., 36
 Blum, 150
 Blumberg, 540
 Bobrie, J., 0
 Bogdanowicz, M., 663
 Boyer, N. A., 47
 Boissonnas, 69
 Boljarsky, 200
 Bonamy, 145
 Bonamy, R., 6
 Bond, C. J., 63
 Bondy, O., 650
 Boon, H. K., 8
 Boonett, 238
 Boothby, W. M.
 Borghenak, O., 30
 Bordé, 154
 Botry, R., 680, 68, 685
 Bourut Lacouture, 67
 Boyd, S., 57, 74
 Brauch, W. F., 5
 Bradford, 48
 Brault, 20
 Brattner, J., 77
 Bragg, 9
 Bratol, L. D., 304
 Brackert, 75
 Brombe, R., 673
 Brongniart, H., 130
 Brucke, J. A., 409
 Bruch, 30
 Brown, 2, 8, 64, 300
 Brown, E., 340
 Brown, I., 38
 Brown, J., 203
 Brunner, F., 600
 Brum, 606
 Bryson, R. C., 563
 Bryant, W. B., 68
 Bublischacko, L. L., 535
 Buchholz, C. H., 640
 Bucklin, C. A., 565
 Bucky, 436
 Bueger, L., 9, 465
 Bugbee, H. G., 674
 Bukojarsky, F. W., 654
 Bulson, A. E., 679
 Bunton, E., 448
 Bunge, 497
 Bunting, 514
 Buquet, 6
 Burgess, G., 38
 Burnett, T. C., 53
 Burnham, A. C., 334
 Busch, E. W., 66
 Buxton, D. W., 507
 Byford, 65
 Bythin-Kolomowsky, 435
 Caux, 85
 Cabot, H., 24, 677
 Cabot, R. C., 65
 Caillaud, E., 200
 Campbell, B. P., 45
 Campbell, J. A., 350
 Cannon, W. B., 643
 Carpio, C. H., 516
 Carmon, A., 664
 Carman, R. D., 51, 630
 Carnot, F., 51
 Carr, H. H., 548
 Carr, W. P., 55
 Carrel, A., 611
 Carstens, J. H., 80
 Carson, N. B., 385
 Carter, W. W., 57, 333
 Cartolari, F., 5
 Carwardine, T., 30
 Cary, E., 87
 Case, J. T., 628
 Castelli, E., 126
 Caulk, J. D., 93
 Caulk, J. R., 457
 Cauley, L., 203
 Cauwenbergh, 130
 Chaffer, 3, 288
 Chance, B., 30
 Chaffard, A., 58
 Cheever, D., 263, 510
 Chieri, O. M., 77
 Chivaro, 4
 Chlene, G., 20
 Chirle, 127
 Chisholm, 430
 Chisholm, C., 3
 Citiell, S., 690, 644
 Clairmont, 288
 Clark, 73
 Clark, C. F., 28
 Clark, J. P., 36
 Clement, 302
 Clendenen, L., 624
 Clunet, J., 67
 Chuvet, 408
 Costa, G., 678
 Cohn, F., 538
 Cohn, M., 30
 Cohnheim, O., 669
 Cole, L. G., 405, 624
 Coleman, F., 603
 Coley, 4
 Coley, W. B., 44
 Colde, G., 338
 Collins, 50
 Colyer, 27
 Comparril, 470
 Condon, A. P., 671
 Connell, F. G., 54
 Connell, K., 60
 Cook, 48
 Cope, 434
 Corbett, D., 205
 Corbett, J. F., 46, 530
 Corner, L. M., 3, 203
 Costa, R., 554
 Coughlin, W. T., 260
 Courelate, 443
 Cowie, D. M., 30
 Cragin, 81
 Crile, G. W., 38, 205
 Critchett, A., 3
 Crohn, B. B., 36
 Crookshank, F. G., 274
 Crowe, H. W., 60
 Crowther, 9
 Cruckshank, J., 646
 Culpen, T. S., 66, 72, 657
 Cullen, R. M., 22
 Cunniff, W. T., 64
 Cusneton, C. G., 20, 22
 Cushing, H., 3
 Dackler, H. W., 634
 Daels, F., 207, 427
 Daguerre, 200
 Dama, C. L., 271
 Dantignac, 145
 Daurer, 283

- Baer N S 357
 Baer I C 379
 Baer 58
 Baer 100 543
 Baer, J. 9 633
 Baer, H. 4
 Baer, I. 63
 Baer, M. S. 8, 43, 4 3
 Baer 329
 Baer, L. 4 3
 Baer W O 323
 Baer, L. 95
 Baer, A. F. 3
 Baer, A. E. 34
 Baer, E. 468
 Baer, O. 467
 Baer, E. 447
 Baer, W. 3
 Baer, J. T. 67
 Baer, 60
 Baer, H. 541
 Baer, H. 647
 Baer, S. G. 354
 Baer, C. A. 31 431
 Baer, 454
 Baer, 33
 Baer, C. 57
 Baer, C. S. 465
 Baer, L. 317
 Baer, A. 97
 Baer, 141
 Baer, 78
 Baer, O. 657
 Baer, G. S. 8
 Baer, A. F. 657
 Baer, C. T. 6 3, 649
 Baer, 326
 Baer, G. 608
 Baer, 44
 Baer, L. 60
 Baer, C. W. 420
 Baer, C. W. M. 333
 Baer, 47
 Baer, 643
 Baer, J. 4
 Baer, J. S. 543
 Baer, W. H. 4 35
 Baer, R. R. 45
 Baer, E. L. 4 7
 Baer, Q. W. 6
 Baer, 70
 Baer, J. 46
 Baer, 47
 Baer, 354 683
 Baer, 644
 Baer, A. J. 670
 Baer, E. F. 66
 Baer, H. 64
 Baer, K. 450
 Baer, W. 390
 Baer, C. 354
 Baer, L. 67
 Baer, W. R. 656
 Baer, C. 07
 Baer, J. 3 56, 75
 Baer, 405 424
 Baer, O. 505
 Baer, H. C. 203
 Baer, L. 20
- Jacobson J H
 Jacobson P. 68
 Jacobson A. S. 608
 Jacobson, 08
 Jacobson, 500
 Jacobson J. H. 3 4
 Jacobson M. 64
 Jacobson R. 450
 Jacobson R. 490
 Jacobson, 5 8
 Jacobson, H. 658
 Jacobson, 55
 Jacobson, J. E. 350
 Jacobson, M. 530
 Jacobson, G. J.
 Jacobson G. C. 608
 Jacobson, J. S.
 Jacobson, 5 4
 Jacobson, A. P. 270
 Jacobson, R. S. 5
 Jacobson
 Jacobson, A. 80
 Jacobson, E. O. 405
 Jacobson, W. H. 304
 Jacobson E. 342
 Jacobson C. I. 553
 Jacobson 300
 Jacobson, E. 44
 Jacobson 200
 Jacobson, 6 9
 Jacobson, L. M. 60
 Jacobson, L. I. 516
 Jacobson, 307
 Jacobson 336
 Jacobson G.
 Jacobson, C.
 Jacobson, M. 4 70
 Jacobson, M. 4
 Jacobson, M. S. 3
 Jacobson, 504
 Jacobson, 7
 Jacobson, M. 136 660
 Jacobson, 5 9
 Jacobson 447 450
 Jacobson, E. 513
 Jacobson, T. H. 4
 Jacobson, F. S. 5
 Jacobson, J. H. 304
 Jacobson, H. A. 07 468, 05
 Jacobson, A. M. 450
 Jacobson 7
 Jacobson, F. 95
 Jacobson, 434
 Jacobson, L. S. 600
 Jacobson, E. 83
 Jacobson, 404
 Jacobson, 463
 Jacobson, R. 5 7
 Jacobson, R. A. 660
 Jacobson 348
 Jacobson O. 340
 Jacobson, B. 314
 Jacobson, R. 596
 Jacobson, W. 573
 Jacobson, E. 5 3
 Jacobson, H. 658
 Jacobson 66
 Jacobson, W. E. 407
 Jacobson, C. 453
 Jacobson 457 683
- Kueber 7 80
 Kueber H. 5
 Kueber W. 20
 Kueber 49
 Kueber C. 1 500
 Kueber 1 5
 Kueber, F. 64, 73 5 4
 Kueber H. 29
 Kueber P. 57
 Kueber P. 530
 Kueber W. 618
 Kueber C. W. 447
 Kueber B. 597
 Kueber M. 630
 Kueber, 68
 Kueber, N. G. 326
 Kueber
 Kueber F. 7
 Kueber A. 6 6
 Kueber, 33
 Kueber, 26
 Kueber 444
 Kueber, L. A. 455
 Kueber 438, 44 446
 Kueber 80
 Kueber 86
 Kueber, 158
 Kueber O. 20
 Kueber, 50, 667
 Kueber 497
 Kueber 384
 Kueber, J. I. 337
 Kueber 60
 Kueber, H. 675
 Kueber B. 50
 Kueber 435
 Kueber, 448
 Kueber, A. 38
 Kueber 3 8, 357 438
 Kueber 40, 300
 Kueber H. 27 645
 Kueber J. J. 573
 Kueber, 3 9
 Kueber, W. L. 5
 Kueber, L. J. 660
 Kueber, M. 63
 Kueber, 358
 Kueber R. A. 305
 Kueber, E. A. 03
 Kueber, 650
 Kueber E. 345
 Kueber 27
 Kueber, 349
 Kueber, 406, 448, 690
 Kueber, 653
 Kueber, E. 440
 Kueber, 34
 Kueber, E. 6 3
 Kueber, 305
 Kueber, 93
 Kueber, A. 46
 Kueber 353
 Kueber, C. S. 356
 Kueber, 140
 Kueber-Barlow W. S. 640
 Kueber, M. 307
 Kueber, G. 600
 Kueber, 287
 Kueber, 95 347 54 672
 Kueber 674
- Leble, 550
 Leble, 63
 Leble R. 630
 Leble, 80
 Leble, V. N. 9
 Leble, 630
 Leble, 463
 Leble A. 520, 606
 Leble E. 6
 Leble F. 53
 Leble, I. 60
 Leble R. 353
 Leble, C. 53
 Leble, B. 463
 Leble, R. M. 97 468
 Leble 74, 309
 Leble 40
 Leble, 446, 45
 Leble, 270
 Leble W. 266
 Leble, F. 268
 Leble, J. 68
 Leble, M. 304
 Leble, E. M. 47
 Leble, S. 5
 Leble, L. 58, 70, 330
 Leble, 339
 Leble, H. 348
 Leble, 46
 Leble, F. A. 334
 Leble, H. E. 630
 Leble, 55
 Leble, 436
 Leble, 286
 Leble, 344
 Leble, H. A. 95
 Leble, R. W. 47 64
 Leble, W. E. 209
 Leble, W. P. 4
 Leble, W. H. 605
 Leble, 415
 Leble, G. 90
 Leble, H. H. M. 280
 Leble, F. 668
 Leble, W. G. 3
 Leble, 408
 Leble, 387
 Leble, G. M. 57
 Leble, T. J. 626
 Leble, A. 40
 Leble, W. D. 350
 Leble, G. 3
 Leble, 347
 Leble, A. 120
 Leble, R. H. 433
 Leble, E. F. 57
 Leble, W. F. 604
 Leble, 33
 Leble, 384
 Leble, G. 400
 Leble, 4
 Leble, 38
 Leble, M. 53
 Leble, P. 580
 Leble, 277
 Leble, D. 73
 Leble, 348
 Leble, 345
 Leble, H. 683
 Leble, H. W. 43

- Martin 170
 Martini, 4 6
 Masland, H. C., 574
 Mason, 76
 Mathewson, G. H., 469
 May 4 3
 Mayne 441
 Mayer A., 83, 544, 55
 M. Yardi, E., 308
 Mayo, C. H., 501
 Mayo, W. J., 37, 583, 308
 McCann, 444
 McCord, C. P., 80
 McCrea, T., 675
 McDonald, 444
 McDonald, E., 80, 83, 92, 58, 303, 305, 308
 McGann, A., 25, 72, 320
 McIlroy 433
 McKenna, C. H., 7
 McKenle, D., 7
 McMeekin, I. H., 407
 McMorrow, F., 94
 McNeel, J. W., 660
 McKernynolds, J. O., 35
 McWilliams, C. A., 107
 Meding, C. B., 330
 Meeker, S., 3 6
 Meisenbach, R., 49
 Meix, A., 14
 Melchior 416
 Meiler 469
 Melnikoff, G. J., 328
 Merial, 3
 Meyer 307
 Meyer A., 37
 Meyer L., 307
 Meyer W., 3 276
 Michelson, F., 408
 Miller A. M., 71
 Miller J. R., 75
 Millette, J. W., 230
 Mills, R. H., 51
 Minz, W. M., 380
 Mitchell, J. F., 53
 Mitthoff, H., 573
 Miyake, H., 370
 Mockrell 425
 Moleson, 55, 409
 Monberg, 393
 Monner 73
 Moore, H. A., 508
 Moore, J. E., 46
 Moore, S., 54
 Morris, M. H., 609
 Morrison, R., 14, 205
 Morse, 79
 Morse, G., 16
 Mosbacher E., 370
 Mount, J. O., 68
 Mubam, 444
 Miller 409, 414
 Muller, H., 30
 Murad, J., 56
 Murphy F. T., 38
 Murphy J. B., 4, 44, 53, 77, 124, 74, 307, 4 1, 408, 308, 537, 574
 Murray, 407
 Myrach, W. M., 360
- Nacks, 446
 Nádory B., 556
 Nasta, 30
 Nael, J. C., 74, 65
 Nelson, R. M., 104, 469
 Nenjakoff D. W., 4 8
 Neudorfer A., 23
 Neumann 320
 Neuman, H., 309
 Newman, D., 30, 543, 550
 Nicholson C. M., 48
 Nicol, J. H., 608
 Nisler A., 604
 Nisler H., 604
 Nordman, 29
 Norris, H., 404
 Norriss, L., 63
 Novak, 321, 44
 Nov-6-Jomrad, 4 6
 Nowell, H. W., 4 9
 Nowicki W., 449
 Nowinski W. N., 409
 Nubels, 20
 Obal, 395
 Obata, J., 535
 O'Brien, R. A., 647
 Ochman, A. J., 7
 Ochman, J. F., 30
 O'Day, J. C., 423
 Ockler, 4 7
 Ockler, 370
 Ockler, A. P., 309
 Ockler, K. H., 530, 55
 Ockler, 305
 O'Malley, J. T., 37
 Opper, 605
 Opper, W. A., 84
 Oppenheimer R., 93
 Opitz 44
 Opoka, 403
 Orinay, T., 533
 Osgood, R. B., 5 534, 640
 Ostrom, F. L., 93
 Ottenberg, 307
 Otter, B., 603
 Otterbridge, G. W., 34
 Outland, J. H., 624
 Palmer, A. K., 550
 Palowals, 46
 Palmy, F. W., 39
 Paskow 66
 Paph, 347, 671, 67
 Pash, 30
 Park, R., 45, 74, 408
 Parker W. R., 30
 Park, A. C., 63
 Parson, O. S., 80
 Pasqual, 243
 Patel, K., 53
 Patterson, H. J., 620
 Patterson, N., 3
 Paus, M., 635
 Pawloff, A., 344
 Payne, R. L., 350
 Pearce, R. M., 305
 Pedersen, 225
 Pedersen, V. C., 22, 405
 Penn, M., 679
 Perazano, G. O., 454
 Perini, 32
- Peters, 337
 Peters, E. A., 471
 Peterson, R., 3 5 320, 634, 66, 664
 Petruschewski, 5 3
 Petrov, G., 505
 Petri, 552
 Petrov, N. N., 6
 Petru, G., 508
 Pfahler O. E., 3 7 6 2, 657
 Pfeiffer 37
 Pfender C. A., 83
 Pfister 328
 Pierce, N. H., 470
 Plakus, 535
 Plakus, A., 657, 653
 Plisk, A. H., 605
 Plisk, G. A., 63
 Plischke, R., 304
 Plachin, 540
 Plück, V., 423
 Plummer 41
 Poberusky, A., 340
 Ponglath, A., 385
 Polak, 80
 Polak, J., 664
 Polano, 667
 Polnow, A., 63
 Pollard, R., 31
 Polmann, 75
 Polva, J., 5 3
 Pooley G. H., 35
 Popelinski, L., 307
 Porter J. L., 47, 160
 Porter M. F., 303
 Porter W. N., 5
 Povey W. C., 92
 Pousson, 91, 5 560
 Pousson, 415
 Pratt, J. H., 58
 Praying, 607
 Propping, K., 35, 307
 Prosser, 16
 Prosser, R., 401
 Prutz, 276
 Pusey W. A., 630
 Py 5
 Rachmanoff A. N., 308
 Randall, B. A., 32, 35
 Rasm, 30
 Rasm, M. A., 4 7
 Rasmowsky W. J., 603
 Rathe, B., 433
 Rawls, R. M., 3 5
 Ray, J. M., 100, 153
 Reeder, D. F., 230
 Reese, R. O., 702
 Regard, 3 9
 Regard, 67
 Reiter, E., 605
 Reik, H. E., 33
 Reik, W. E., 38
 Reinhard, H., 449
 Reiser, J., 27
 Reissner, C. M., 160
 Retschke, 38
 Rich, L. A., 87
 Richardson, D. L., 354
 Riklon, J., 696
 Roach, A., 80, 634
- Rice, 80
 Ries-Pinsky A., 551
 Ritchie, F. G., 10
 Ritter, 305
 Rizzacini, N., 449
 Rissman, 307
 Robb, H., 794
 Roberts, 70
 Robertson, E. N., 678
 Robertson, T. B., 58
 Robinson, 61
 Rocky A. E., 223
 Rodman, S., 36
 Romero 437
 Roman, 304
 Rowley A. J., 90
 Roper, 74
 Roper, W., 3
 Rorschach, 27
 Rosenberger, 30
 Rosenheim, T., 309
 Rosow, E. C., 187
 Rosenthal, L. B., 66
 Ross, G. J., 160
 Ross, T. W. E., 66
 Rouse, 434
 Rost, F., 207
 Rotch, T. M., 506
 Rothmann, 301
 Roney A. F., 666
 Roon, 79
 Roos, G. 7
 Routh, A., 547
 Rowland, J. M. H., 536
 Rowland, R. P., 51
 Roy D., 679
 Ruben 96
 Rubenstein, 429, 432
 Ruediger E. H., 532
 Ruge, E., 58
 Runge, E., 34
 Runge-Schewitz, A., 634
 Runoff A. G., 307
 Russell, J. F., 66
 Ryall, C., 39
 Rydberg, A., 283
 Sahl, 666
 Sampson, 443
 Sampson, J. A., 74, 99
 Sanderson, W., 230
 Sanzini, C., 278
 Santucci, A., 500
 Sano, T., 43, 59
 Sauerbach, F., 6
 Sauerbaum, 640
 Sanderby 27
 Sasse 33
 Savary, 320
 Savry, 75, 416
 Schabak, 436
 Schiller, F., 35
 Schode, F., 103
 Schickelmaier, E., 458
 Scherck, B. R., 66
 Scherck, 505, 524
 Scherckhoff E. W., 345
 Scherwind, M., 639
 Schiffmann, J., 304
 Schlemm, 403

- 37er, 13
 Schimper, 268, 337 453
 Schimper, B., 600
 Schiffer, 354
 Schindler, A. 547
 Schindler, 183
 Schmid, H. H., 390
 Schmidt, 300, 420
 Schindler, 283 300
 Schmitt, 266
 Schmitt, 303
 Schottlander J. 660
 Schreiber 42
 Schreier, F. 172
 Schramm, 275
 Scher H. 304
 Schütz, 497
 Schrammberger R., 324
 Schramm, 667
 Schwarz, A. 5
 Schweitzer 451
 Scott, 84
 Scott, G. D. 673
 Seeligmann, L., 330
 Seifert, E., 429
 Seidel, 30
 Seifert, 268
 Seitz, 330
 Sella, U. 437
 Sellman, 443
 Sever, J. W. 77
 Shambharg, G. E. 33.
 30, 430
 Shattuck, S. G., 68
 Shaw 80
 Shaw W. F., 43
 Shennaker, G. L., 44
 Sherr, A. R., 29
 Shuman, 68
 Shownway 28
 Seifert, 327
 Sierra, R.,
 Sigwart, 8
 Sigwart, W. 658
 Silva, R. H., 406
 Simon, L., 28
 Simpson, W. L., 350
 Sinjashin, N. 37
 Skinner, E. H., 57 624
 Slavinski, Z., 75
 Slomons, M., 358
 Slater G. 235
 Smirnov, 38
 Smith, 80
 Smith, C.,
 Smith, G. M., 614
 Smith, G. W. 468
 Smith, J. T. 97
 Smith, M., 33
 Smith, O. C. 496
 Smith, P. 679
 Smith, R. R., 5 7
 Smith, S. A., 5 3
 Smithson, F.
 Smoler F. 38
 Smyth, F. R., 239
 Snow W. B., 425
 Sochacka, 346
 Sohier, G., 300
 Sohier, M., 337
 Solert, S., 5 5
 Sonnenberg, 395
 Sorrel, 306
 Spaulding E. R. 79
 Speed, K. 637
 Sperre 34
 Spickel E., 20
 Spina, 4
 Spillmann, 3
 Sprengel, 34
 Spode, H. 408
 Squier J. B., 658
 Stalonski, A. A., 385
 Stawski W. W. 445
 Stahl J. 350
 Staff orth. C. J. 28
 Stanton, J. 47
 Stände, C. 665
 Stein A. E. 267
 Steinbarten E. C. 5 339
 Stendell W. 607
 Stephenson, S. 570
 Stern, M. 57
 Sternberg, 206
 Sternberg, A. 386
 Stettin, D. 330
 Stewart, W. 86
 Stevens, A. R. 566
 Stierma, W. C. 504
 Stewart, F. T. 3
 Stewart, J. C. 330
 Sticker A., 3
 Stierlin, 65
 Stocker 4
 Stocker S., 507
 Stockard, W. H., 45
 Stockel, 440
 Stodol, A., 64
 Stone H. B., 26 27
 Strausman, G., 96
 Strauss, A. 57
 Stronover 443
 Strobel 310
 Ströbel, H., 528
 Stocker, L., 405
 Strasser M., 147
 Stadlko, 314
 Summers, J. E. 628
 Sommer F. W. 30
 Sutton, R. L. 305 418
 Sweek, W. O., 529
 Sweeney T. T. 654
 Sweet, J. E., 26
 Swetachukoff, W. A., 473
 Swetachukow 389
 Syloff, W. M., 4 8
 Syms, P. 424
 Synovick, F. 420
 Talt, D. 505
 Talbot, 634
 Tate M. A., 300
 Tatum, 384
 Teusling, 88
 T. ylor R. T. 209
 Toman, C. E., 400
 Terraghi, 448
 Tilley H., 471
 Thelhaber A., 28, 3 5, 323
 Thies, 3
 Thiry 38
 Thomas, 39
 Thomas, J. J., 302
 Thompson, W. L., 667
 Thomson, A., 5 3
 Thomson, J. 67
 Tichomiroff 628
 Tietze, A., 274
 Tinel, 33
 Todd, F. W. 73
 Tommasi, 268
 Torek, 386
 Touche 70
 Townsley J. P. 4
 Traup 6
 Trautott, M., 328
 Trautmann G., 27
 Treub H. 334
 Trischew 336
 Troell, A. 638
 Truesdale, 513
 Tuffier T., 381, 433, 505, 600
 Tumuro, P. R., 308
 Twenly, 80
 Tyson, H. H., 227
 Tytler 70
 Tyner L. E. 530
 Ulenko-Strogonoff 655
 Underhill, A. J. 2
 Unterberg, H., 403
 Vaid, D. T., 320, 371
 Van Dam, J. M., 97
 Van der Hoeven, 348
 Van der Hoeven, P. C. T.
 547
 Van der Scheer W. M.,
 633
 Van Erpe, E., 205
 Van Hengel, L. D. 34
 Van Tomsbroek, 99
 Vaughan, 67
 Vautrin 356
 Vodova, R. D. 414
 Velt J., 549
 Verhoff F. H., 00, 57
 Vianaay 8
 Vignor 304
 Vincent W. G., 670
 Violet, 75
 Vlascher 621
 Voelker T. 206
 Voelcker F. 340
 Vogelsberger 440
 Vogt, 60
 Vogt, E., 203, 323 320, 447
 Volga, H., 437
 Von Beck, 400
 Von Behring, E., 646
 Von Bornstein, O., 203
 Von Braun, 21
 Von de Velle, 547
 Von der Hoeven, 289
 Von Ekeleberg, 270
 Von Fink, 14
 Von Franzel, 539
 Von Haberer 284, 328
 Von Haytens, D. G., 556
 Von Hye, G., 672
 Von Klein, C. U. 84
 Von Lang 604
 Von Mielecki, 28
 Von Mutschbacher T.
 499
 Von Ruck, K. 8
 Von Saar 4
 Von Saar G. F. 524
 Von Tappeler 47
 Von Wistinghausen, 622
 Von Wronowski, 75
 Von Zebrowski, 84
 Voorhees, I. W. 35
 Vorchetta, 3
 Vortsch-Van Vloten, 557
 Vulpian, O., 299 408
 Vyskavel, 204
 Wachner, F. 634
 Wagner G. A., 555
 Walker 70
 Walker C., 78
 Walker J. W. T. 225
 Wallace, C., 567
 Walter F. K., 27
 Walther, 546
 Walker H. 3 5
 Ward, 80, 87
 Ward, G. G. 43
 Warlschbach W. K., 460
 Warneke, 553
 Warthin, A. B., 59
 Washburn, C. L., 5 5
 Weber 42
 Webster 83
 Webel, 44
 Wedder W. B., 459
 Weddman, F. D. 70
 Wedl, G. C., 643
 Wedl, R., 6
 Wedl, S., 24
 Weiss, R., 639
 Weitzel, 54
 Weiss, W. A., 351
 Weizmann, O. 632
 Wendel, 328
 Wengowski, R., 6, 323
 Werhoff J. 338
 Werder X. O. 316
 Werner, 121, 426, 664
 Wetherill, H. O., 29
 Wheeler W. L. D., 164
 Whipple, G. H., 26, 27, 420
 Wikke, 27
 White, C., 202
 White, F. W., 51
 White, S., 516
 Whitehouse, B., 3 2, 429
 Whitlocks, 277
 Whittingham, H., 178
 Weibel, W. 73
 Wiesner A., 23
 Wiesner J. 203
 Wieting, 309
 Wight, O. B., 3 9
 Wilcott, D. G., 190, 204
 Wilkinson, M. R., 251
 Willard, D. P. 20
 Williams, J. T. 84
 Williams, P. F. 205
 Wilkins, R. J. 266
 Willms, 30, 427
 Wilson, L. B., 9, 10, 6 7
 Wilson, P. 445

Wieg, 843
 Wiesner E., 197
 Wiesner, Wm N
 Wolf, 425
 Wolf, W 651
 Wolf, A., 54
 Wolf, B., 665
 Wolf, L., 8

Woolsey, G., 96
 Wright, B. L., 227
 Wyckoff, C. W 275
 Wyler J. S., 469
 Young, J. K., 55
 Zaajler J. H., 80
 Zandrognaol 453

Zangemeister 415, 554
 Zangemeister W 235
 Zappi, R. F 328
 Ziegenpeck, 654
 Ziegler 418
 Zienke 453
 Zimmermann, B. F 649

Zinke, E. G., 664
 Zinke, G., 235
 Zimmer A., 82, 387
 Zobel, 402
 Zocoppitz, 430, 45
 Zornakow, G. T 314
 Zuckerlandl P 40

